

# **Music** **the nectar of life**

**Pandit Shriram Sharma Acharya**



# MUSIC

## THE NECTAR OF LIFE



(Translation of selected writings of  
Vedmurti Pandit Shriram Sharma Acharya)

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**Website :** [www.awgp.org](http://www.awgp.org)

**Phone:** 91-1334-260602 / 261955

**E-mail:** [shantikunj@awgp.org](mailto:shantikunj@awgp.org)

# Preface

Cosmic existence of sound, its expression in the rhythmic order of the origin and vivid manifestations of Nature, and its spiritual expansion in consciousness are dealt in the Vedas as the knowledge of “*Śabda Brahm – Nāda Brahm*” Volume 19 of “Pt. Shriram Sharma Acharya Vangmaya” series presents an in-depth yet perspicuous study and analysis of the philosophy and science of *Śabda Brahm – Nāda Brahm*. This book is a translation of two Chapters of this volume that focus on the genesis, evolution and applications of music.

The book provides truly rare knowledge of the emergence of natural musical notes (*swaras*) from the eternal impulse of *Nāda* and consequent emanation of the *Shastric (Indian Classical) Music*. This Indian classical music was developed and propagated by the *Vedic sages*. They had recognized the linkage of music with the emotions and intrinsic nature of the living beings and thereby evolved the methods of its enchanting practices. They had also discovered special *rāgas* for the chanting of *Vedic Mantras* and the spiritual *sāadhanās* of music. The books tells us how we could endeavor reviving this

glorious tradition today when the liking of people is mostly entrapped in artificial and fast-beat music and when commercialization and perversion of this universal mode of entertainment is at its peak?

Different effects of the *rāgas* (classical tunes) of music and their applications are elucidated in this book. References from the ancient Indian text as well as from the modern scientific research findings are cited with relevant examples. Applications of music reviewed here range from those in agricultural production and music therapy to social improvement. Reports on some organizations and laboratories across the world that are contributing to enhance the constructive applications of music in future are also presented. The readers will find substantial information on the types of *swaras* and *rāgas* and the effects of different compositions of the classical and the modern systems of music.

The negative effects of adulterated music are more pernicious than noise pollution, as the domain of their damaging impact encompasses delicate layers of emotions too along with the body and mind of the performers and the listeners. The same is true of the insidious nature of substandard lyrics. The book analyzes these aspects extensively with evidential support.

It is a pity that the modern world has seen the worst possible misuse of the power of music – through its commercialization and propagation with noisy, carnally exciting and high beats in the background and erotic lyrics. Its offshoots are frequently seen in terms of disharmony of body-functions, mental degeneration, emotional instability and moral degradation. The only saviors have been the sincere efforts of some dedicated musicians and scientists because of

which music therapy has become a widely utilized technique for the treatment of psychological and psychiatric disorders. Excellent results have enhanced its scope in the area of agricultural and animal products too.

It is the right time when more and more people should come forward to establish and support the organizations like “R-for-R” An organized and firm opposition to substandard music and total rejection of its obscene varieties would be strengthened by bringing more and more people – especially the youngsters in touch with melodious music of enchanting, inspiring and devotional quality. In view of the general mentality and living style of the masses in a country like India, the “cultural-uplifting and character-building” efforts of the institutions like Shantikunj, Haridwar are worth being pursued with a greater zeal.

The book describes the efforts of such organizations along with detailed information on worldwide research and applications of music as a therapy.

Refined music is not simply a medium of entertainment or a mode of soothing effects on the mind-body ensemble. Rather, as the book adeptly conveys, it is also a source of spiritual enlightenment. The *sāadhanā* of *Nāda Brahm* is a super-level spiritual experiment that upon success enables ultimate realization of the eternal sound of *Oamkāra* and divine transformation of emotions and sublimation of consciousness force. Manifestation of *Nāda Brahm* in the *swaras* of music and its creative expression in the *Indian Classical Music* has been a boon for the human society. The book has brought us an opportunity to know about the genesis and scope of this elixir of life.

**-Dr. Pranav Pandya, MD**

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# Music - A Swara Sādhana of Śabda Brahm

**L**atest research on different components of the 'atom family' has shown that the orbital motion of the tiny particles in an atom (or its subtlest division) is governed by an energy that is generated by vibrations in the self-existent energy field of the Higgs Boson. The source of this energy-field is still not deciphered by modern science so it is till now regarded as 'self-existent' and perhaps for this reason the Higgs Bosons are also popularly referred as 'God Particles'. The eternal source of this energy and hence of the entire creation is, according to the ancient Indian texts, some kind of transcendent 'sound'. This sonic energy is omnipresent in the sublime cores of Nature and is the fundamental cause of all energies, vibrations, and movements. Eminent scholars of the deeper science of Nature describe it as the sublime sound of *Omkāra*, which is the self-educed expression of the evolutionary impulse of *Brahm* – the omnipresent, eternal consciousness-force.

As we all know, once oscillated by a swing, the pendulum of a clock continues to move automatically until the clock is on. Similarly, the motion of the subtlest particles in the cosmos,



once triggered by the *Nāda* (rhythmic sound) of *Omkāra* continues forever. The cycle of Nature continues like the circular motion of a child's toy top. (The toy top stops after sometime as it has limited kinetic energy, but the evolutionary force of *Brahm* that generates the 'kinetic energy' for Nature's manifestation is ever-existent).

## Musical Notes: Expressions of Omkāra at Seven Frequencies

The modern schools of music in India divide it into two major classes – classical music and light music. In classical system, the structure of a compositions of Music is defined as in terms of *swaras* (musical notes), *pada* (paragraph of prose), *laya* (tune) and *mārga* (direction for speed-variation). The songs without *swaras* are called *abhidhāna vāna*, used in *abhivādan* (conversation in a prose). These two types of songs are included in the *Deyā* and the *Vāk* parts of music.

The eternal *Nāda* of “*Omkāra*”, which is referred as the genesis of all (energy) vibrations in Nature is also regarded as the root of all *swaras* (musical notes). Like the seven colors emitted from the Sunrays, the seven basic *swaras* (musical notes) of Nature are said to have originated from the eternal sound of *Oam*. These *swaras* are manifested in the musical notes of the octave as the sounds of – *Sā, Re, Ga, Ma, Pa, Dha, Ni*.

Interestingly, the major streams of *yoga-sāadhanās* are also seven: namely, the *Rāja Yoga*, *Hat̥ha Yoga*, *Prāṇa Yoga*, *Śakti Yoga*, *Jñāna Yoga*, *Karma Yoga* and *Bhakti Yoga*. The seven (*Sapta*) manifestations of *Omkāra* in the subtle body are counted as the powers indwelling in the seven extrasensory energy-nuclei (these are referred as the *chakras* in yoga-literature). *Brahm Vidyā* -- the mystic knowledge of realization of *Brahm* -- is expanded in

the form of *Sapta Loka*, *Sapta Sarovara*, *Sapta Sāgara*, *Sapta Meru*, *Sapta Deva*, *Sapta Tīrtha* and is attainable by *Sapta Sāadhanās* that were discovered by the seven Vedic sages – the *Sapta Rishis*. Incidentally, the materialistic science is also divided into seven major branches.

Scriptures of Yoga described that the upward and downward flow of *Prāṇa* (vital spiritual energy) in the *Idā* and *Pingalā Nāḍis* generates the vibrations of the seven *swaras* (of *Omkāra*) in the *viñā* of the spinal cord. These are 'perceived' as the seven kinds of transcendental sounds produced by the seven 'tongues' of the 'serpentine power' – *Kuṇḍalinī*, - i.e. the seven major currents of activation in the core of *prāṇa* in a human being. The *yogi* who links his consciousness with these seven *swaras* attains the supernatural spiritual power that, if awakened, could control the activities of Nature.

As the flow of vital energy in our body is controlled through breathing, the *swara sastra* – ancient science of *swaras* (synchronized sound) of breath is therefore rendered crucial place in the scriptures of *yoga*. The *yoga sādhanā* of perfection over the *Sūrya* and *Chandra Swaras* (natural flow of breath and hence the vital energy through the solar and the lunar nerves in the *pingalā* and *idā nāḍis* respectively) of vital energy flowing through the right and the left nostrils is fundamental among the *sāadhanās* of *swara yoga*.

Every activity in Nature takes place in some kind of cyclic order. The sounds made by animals, birds and even tiny insects bear certain rhythm. The early morning warbling of the birds or the crowing of cocks, etc clearly demonstrates this fact. The voices of nightingales, peacocks, partridges, sparrow hawks etc are also rhythmic with varied degrees of melody. Among the voices of the animals, we can easily find the rhythmic order in

the barking of a dog, roaring of a lion or the bleating of a sheep. The singing of the beetles in night is quite familiar to us. This rhythm of *swaras* exists in the voice of every creature; even the plants and trees and the elements of matter also produce rhythmic sounds, most of which are beyond the grasp of the audio sensors of our ears. The activities of the *jaḍa* (material) and *chetan* (conscious) components of our mind-body system also generate different melodies of the *swaras* that can be sensed by devout *sāadhanās* of the *Nāda Yoga*.

The ancient history of music in the human society shows it to have emerged from the sentiments of devotion, compassion and the feelings of pure love and affection for God. Its divine origin had made it a precious branch of art in the ancient times. Since the times of the *rishis* of the *Vedic Age*, music has been the medium of divine *sāadhanās* of the saints in India. All the saintly poets of the *Bhakti Kāla* had been either writing devotional songs or singing in the reverence of God. This tradition had continued from Devarshi Narad to the saintly poets like Surdas, Tulasidas, Meerabai, Raidas and Kabir.

The image of Goddess Saraswatī (the deity of knowledge and talents) is depicted as having a book in one hand and a *vīṇā* in the other. It explains that there are two branches of knowledge – the *Śabda Śāstra* (knowledge expressed in words) and the *Swara Śāstra* (ancient knowledge pertaining to music). It is via these two streams of knowledge that our thoughts and sentiments are illuminated. Acharya Ananta Vardhana has described, in detail, the implications of different representations of divine powers in the idols. The *damarū* shown in a hand of God Śiva and the flute of God *Kṛṣṇa* also highlight the divine level of music.

The ancient Indian scholars include music among the basic experiences of human culture. In typical rhetoric style of the scriptures, a scholar states –

*Sāhitya Saṁgīta Kalā Vihīnaḥ |*  
*Sākṣāt Paṣuḥ Puccha Viṣāṇa Hīnaḥ | |*

**Meaning:** A man without the knowledge of music, art and literature is like an animal without a tail.

*Khagāḥ Bhṛagām Patamgāṁśca Kurgāṁdyapi Jantavaḥ |*  
*Sarva Eva Pragāyante Gītavyāpti Digantare | |*

– Nārada Saṁhitā.

**Meaning:** The birds, humming bees, moths, deers and other creatures also sing. The melody of music is present everywhere in Nature.

## Connection with Consciousness:

A French zoologist, Dr. Vastive Andre, has thoroughly investigated the effects of music on the wild animals, aquatic creatures and birds. The results of his study indicate that music does affect, with a varied degree of impact, the brain and the physiological system of every creature. If the melody of music is coherent with its soothing feeling, the animal (or bird) demonstrates a sense of pleasure and energetic activities. However, the sounds of the frequency range or rhythms beyond its natural liking create adverse effects on its health. It is observed that many types of yeast and bacteria are killed by the high pitch rhythmic sound of a bugle. The research of some German zoologists is focused on identifying the special kinds of music that are most suitable for a particular type of animal or bird. They hope that the natural tendencies of the animals could be changed temporarily by the impact of special music. This way, one would be able to

control the violent animals and expel or eliminate the insects by special effects of music.

Music provides the best way of expressing emotions. It is not necessary that the words of a song also be the linguistic translation of the emotions. Even without the involvement of any vocal expression or language, the sounds (melody) of music can convey their emotions. The flow of music expresses itself even in the absence of an audience. Interesting, music also influences emotions. Many such effects of music on humans are well known. Its melody offers instant relief from physical and mental fatigue. Eminent poet Homer has stated that - “The remedy for mental agony lies either in an open cry and weeping or in the melody of music”

It is said in the ancient Indian texts that devotional prayers are most effective if they are sung with music.

*Viṣṇu Nāmāni Puṇyānī Suswarai Ranvitāniceta |*

*Bhavanti Sāma Tulyāni Kīrtitāni Maniṣibhiḥ ||*

– Saṁgīta Parijāta

**Meaning:** If one chants God's name (or prayer) in the rhythm of the musical notes then it would be effective like the *Sāma Gāna* (collective chanting of the *Vedic Mantras*).

Renowned poet, Thakur Ravindra Nath Tagore had discovered even higher level effects of music. According to him, “The origin of music is supernatural and is beyond the reach of human beings. Music can liberate the human consciousness, which otherwise remains bond in the routine chores of the worldly activities of life. It takes the singers and the listeners both into that ascetic state which is regarded by the experts of the subtle sciences as the foundation of the entire creation existing in the cosmos”

For the majority of people today, music might have become only a medium of entertainment for many because of their ignorance but the fact remains that music is a faculty of divine serenity and power. The *vedas* are said to have been realized as the expressions of *Śabda Brahm* through a medium of *swaras*. All the *veda mantras* were therefore recited by the *ṛiṣis* as *chandās* (hymns). The Sāma Veda describes all possible compositions of *swaras* for the chanting (*Sāma Gāna*) of these *mantras*. Earlier, each type of *sāma gāna* had thousands of compositions of *swaras* associated with it. The knowledge of these was contained in different branches of the *sāma (veda)*. Today, only some of these compositions are known to a handful of experts. The *sāma gāna* of the *veda mantras* was an integral part of all *sāadhanās* in the ancient era. The science of *mantras* implies that it is not the linguistic meaning, rather the eternal sonic effects of the *mantras*, which make them unique in all respects. The *ṛiṣis* used to accomplish supernatural powers by various experiments of *sāma gāna*.



## Music – An Expression of Nāda Brahm̐

**T**he Vedic *Mantras* are regarded as manifestations of the cosmic power of *Śabda Brahm̐* and the ancient Indian classical music as an expression of the eternal rhythmic impulse of *Nāda Brahm̐*. The natural *swaras* of music emanate from the eternal *Nāda* (rhythmic expression) of the cosmic sound. As soil and stone are the basic materials required for making an idol, bricks for constructing a building and colors for painting a picture, so is *Nāda* for the existence of music. In the field of spiritual knowledge, this *Nāda* (of cosmic sound) is regarded as an expression of the *Brahm̐* and is referred as – *Śabda Brahm̐ - Nāda Brahm̐*. This is not simply a rhetoric representation, rather, a reality that could be experienced in many aspects of life.

The immense potential of *Nāda* (and hence of music too) in eliminating the illusions and instability of mind and in the refinement of the thought process is well known. When a single stream of *Nāda* alone is so effective then what about the impact of music that consists of collective compositions of a variety of expressions – reflected in the different *swaras* of *Nāda*.

The power of *Nāda* works significantly in diverse ways in different forms of living beings. Darwin has explained this fact more clearly in his popular book 'Descent of Man'. Based on a large number of live examples, the author has shown that – the voice of a bird is not produced by a single stream of sound, rather, a mixture of different expressions and variations of musical notes (*swaras*) are present in it. This is why the birds sound so melodious. Certain pattern of pause and change of different notes is found in the warbling of the birds. This pattern or style is also adapted in the development of certain tunes of music. As per Darwin's interpretations, pet dogs bark in five different *swaras*, the domestic cocks crow in twelve apparent combinations of *swaras*.

R. Lockwood has described about a species of rat that can clearly produce a half-beat *swara* in its voice. This rat sometimes takes its *swara* gradually below the lowest note in the musical octave. Lockwood has even designed a 'script' of *swaras* of the 'musical' variation of the voice of this type of rats. Many singing birds also possess an inherent talent of maintaining the ups and downs of their *swaras* in a disciplined manner.

Some scientists opine that the birds use music to distinctly express their feelings of fear, despair, anger, victory or joy. Among the humans, the three times larger length of the vocal cord in the males as compared to that in the females is attributed to the frequent use of different *swaras* (patterns of pitch and amplitudes of the voice) by the former while expressing the feelings of love, anger, jealous etc in the initial period of the evolution of mankind. Physical expression of music has been clearly experienced by humankind ever since the birds have expressed their different 'moods' through different combinations of *swaras*. The ability of inducing variations of



*swaras* in the natural voice – is indeed a precious bequest of Nature to the animal kingdom.

In his book titled 'Science and Music', Sir James Jeans has written that music has progressed continuously from the primitive level of 'the warbling of birds' to the enormous varieties of music generated by the human beings. The music developed by the humans has got enriched successively as human civilization has moved forward. In his views, in the initial phase of modern civilization, people used music only to express a handful of feelings and moods of love, jealous, struggle or triumph etc, which was like what the birds do through the 'music' of their warbling or chirping.

Some anthropologists like Mr. Maxmuller argue that music appeared in the human society much before the language because, like any other creature, a human being in the beginning of his life first expresses only a limited number of distinct expressions (namely, sorrow, pain or cheer) in different *swaras* (tunes and pitches) of his voice. The history of human civilization as analyzed by some scholars shows that the early generation of human species used to make three different kinds of *swaras* (voices) to express love by the first, envy by the second and the triumph by the third. With the evolution of the human brain and associated progress in his ability to think, wide variety of sentiments and thoughts were emanated from his feelings that required more complex types of expressions. It is since then that the combination and upward or downward variations of different *swaras* (musical notes) were identified by way of different signs, which later on gave rise to the formation of syllables and vowels. Thus, different compositions of *swaras* were associated with different conjunctions of these symbolic representations to 'convey' different feelings, thoughts or

variations in moods; this is how a language of expression had emerged.

Music is not only an expression of love, joy, or related amorous sentiments, it also has the power to reflect all moods of a person. It has been doing so, long before the origin of languages. The natural cry of women is somewhat musical. Some African tribal, if excited, speak in a loud musical tone. Until the development of a language, music was the sole mode of communication in the human society. With the gradual expansion of languages, the 'conversational' use of music lost its popularity; still music remained a powerful medium for expression of collective pleasure and enjoyment. The powerful tool of music also induced collective awakening of the zeal of the soldiers during the war times. This is what gave rise to the development of folk music and dances and the special bands of army in general. Intimate relation of music with festivity, mourning or wartime stimulation remained predominant throughout the history of human civilization.

It has also been a common observation on the occasions of musical concerts that whenever the singer or musician has to convey a different 'message' to the audience, has to change their moods or has to create sudden excitation in their emotional fields. He does that by changing the pattern of the *swaras*, amplitude, speed, or tuning of his music. Monotonic performance cannot be so successful as it would become boring and ineffective, being deprived of the natural flow of music. Even in routine conversation, the ups and downs of our voices play a great deal in making it more meaningful and effective mode of verbal communication. Nobody can deliver a lecture or speech without variations in the pitch and tone of his voice. Thus we see that every kind of effective vocal

expression also depends upon the *swaras* in one form or the other. This is so because the waves of different emotions or thoughts essentially progress by the variations in the patterns of *swaras* only.

A structured variation in *swaras* gives rise to music. No music could be composed without involving the ups and downs in the basic *swaras* of *Nāda*. The origin of music is attributed to the variation of *Nāda*, occurring continuously in the omnipresent vibrations of the Nature. The flow of this sublime music is natural like the warbling of the birds. It is this music which is referred in the *Śāstras* as an expression of *Nāda Brahmā*. Only this music has a power to maintain the natural flow of *prāṇa* in all creatures and it can therefore be used as a therapy against the mental and physical abnormalities. It is so unfortunate to find that this original class of music – the *Śāstrīya Saṃgīta* is hardly practised in today's society. The artificial beats of pop and rock have adulterated Indian music too. It appears impossible to protect the masses from the malice of noise in the name of music.

The awaken souls, who have had the opportunity to be graced by the nectar of pure classical music must come forward to explain its inherent relation with the *jaḍa* (inert) and *cetan* (conscious) components of Nature. The natural flow of vocal music in specific *laya* (melody) and *tāla* (rhythm, tune) is inseparable from the subtle flow of *prāṇa*. It (music) could be manifested through the medium of voice or the sound of (musical) instruments by maintaining a proper discipline over the compositions of *swaras*. Vocal and instrumental forms of music complement each other. The currents of music are often so powerful that the emotions of the singers, musicians and audience flow with them.

All kinds of emotions – be those erotic, inspiring, or devotional, could be stimulated among the audience by different kinds of music. While the pure, natural, devotional music may transmute an ordinary personality into a divinely refined one. The erotic, artificial and exciting 'music' could, on the contrary, decline one's physical, mental and emotional heights upside down. The flow of music is powerful like a flood; the emotions of those 'engrossed' in it are swept away in the direction of this flow. Realizing the subtle and gross effects of music one should be careful and should opt to practice and listen to the refined, sonorous, melodious and pure music that has emanated from the *Śāstrīya Saṃgīta*.

As mentioned earlier, *Śāstrīya Saṃgīta* is a natural manifestation of *Nāda Brahm*. The *śāstras* describe God Śiva's *Tāṇḍava* and the gigantic vibrations of the ultimate 'destruction' (evolutionary transformation) of the universe to move in tune with each other. *Nārada*'s devotion is said to intensify with the *swaras* of the divine *viṇā*. In the ancient era, music was a component of divine delight and was developed under the auspices of the *swara yoga* and *nāda yoga*. The gradual decline in the ideals of the society and character of individuals in the medieval society had, to a large extent, led to the confinement of the fields of literature, art and music in the peripheries of amorous and erotic expressions, cheap entertainment and sycophancy of the mighty rulers in general.

The singers, who could trigger the warriors towards the path of victory and the audience, who would aspire to listen to such educating music, all seemed to have disappeared from the larger section of the society in this dark phase of the Indian history. It was perhaps due to this maligned state of music that in the later years, some rulers had banned music and expelled

all the singers and musicians along with their instruments. Even today, learning or practising music is not regarded high by a large section of the Indian society. The handful of musical schools which have maintained the glory of the *Śāstriya Saṃgīta* certainly have a place of respect in some parts of the society where one at least knows about the original status of music in the Indian culture and philosophy.

Emergence of scientific thinking in the modern era has added new dimension to the study of music. Experiments aimed at therapeutic and other applications of music have shown remarkable effects of music on human beings, animals and insects. The possibilities are no less in the botanical world too. Fast growth-rate of grass, production of tastier and bigger vegetables and fruits, and healthier growth of some plants were observed in certain fields that were kept under the effect of sonorous music in some especially designed experiments. The woods of the trees which 'listened' to the melody continuously were found to be thicker and stronger as compared to that of the some other trees of the same type.

More surprising are the observations that even metals absorb music. In some experiments, it was found that the ornaments and instruments whose manufacturing was processed in the consistent presence of soft music were more shining and stronger. The buildings where dedicated disciples of classical music have performed long-term practice also seem to imbibe the influence of music. People who had visited such places long after had found a soothing atmosphere of peace and happiness there; even those with reserved, depressive and quarrelsome temperament had experienced similar feelings, which had also inspired a welcome change in their tendencies.

Enchanting melody coupled with calmness are the basic characteristics of music. High pitch or loud beat sound cannot be regarded as music even if it produces fantastic rhythms. That way, even the sounds of the machines in a factory or the speedy movement of the wheels of a train or of the wings of an aircraft etc are rhythmic but we all know that these are nothing more than noise. The songs played on a loudspeaker or the hard and haphazard striking of the bands that is commonly found in some wedding ceremonies in India, also makes noise instead of producing music. This type of loud 'music' adds to the noise pollution and it could be quite harmful.

Music is that -which is soft, melodious and escalating; which feels soothing to the ears, peaceful for the mind and which absorbs the mind and the heart in its euphonious tune; which does not kills one's sleep, instead, helps one sleep in a relaxed state of mind. Music should create an atmosphere for emotional enlightenment, introspection and in-depth peace. Those associated with music may note that it would attain its original glory only by eliminating evil instincts and inspiring divine sentiments and thoughts in all directions of life.



## Experience of Eternal Syllables by Swaras

A parable in the *Puranas* mentions about Devarshi Narad's long journey aimed at reviewing the status of spiritual developments on the earth.

Narad had to encounter with people's common queries like – 'How to find God?' 'Why is it so difficult to realize Him?' Wherever he went, people asked him to suggest easy ways by which they could feel god's presence without hard practices of penance and *sādhana*s. Narada then promised the people that he would get proper guidance in this regard from the God Himself.

On his return, Narad asked God Vishnu – “Oh, Lord! it is so difficult for the people to feel *thy* presence. Kindly tell us about the method that can be easily followed and practised by every aspirant of divine realization. Vishnu then replied –

*Nāham Vasāmi Vaikuṇṭhe Yoginām Hṛdaye Na Vā |*  
*Mada Bhaktāḥ Yatra Gāyanti Tatra Tiṣṭhāmi Nārada | |*

– Nārada Saṁhitā

**Meaning:** Narad! I neither reside in the *Vaikuṇṭha* (heaven), nor in the hearts of the *Yogis*. I live in the devotional

music. (That is, one can easily feel the presence of God by practising *Bhajana*, *Kīrtana* – devotional prayers with music).

The above episode indeed highlights the paramount importance of music as a divine medium. It also reminds us that in ancient India inspiring devotional music was an integral part of social and religious life. Classical dances were also a part of this branch of art. Music (and dance) was a medium not only of healthy entertainment, but also more importantly, was developed as a mode of performing devotional prayers *Bhajan*, *Kīrtana* and creating social awareness (by the musical programs of scriptural story-telling and chorus folk songs). The personal and social life of every individual was creative and ecstatically peaceful during those days of perfect use of music.

In today's noisy and trouble stricken world as well, the melody of music serves as a boon for rejuvenation. Music offers soothing patience to a heart, which is suffering in agony. It generates a feeling of satisfaction and joy and inspires creativity. Every important occasion, be that the festivity of a birth, a wedding celebration or religious or social get together, etc, or, that of mourning after death, has a suitable place for music for expressing the mood of the atmosphere. This bequest of Nature is for each one of us.

The *sāadhanā* of inner enlightenment through music – the spiritually dulcet composition of *swaras* (notes) is described to be the best method for realizing the eternal syllable of the *Para Brahṁ*. This is why all the procedures of *sāadhanā*, *upāsanā* and even the rituals associated with them necessarily include some practice of *swaras*. Every *mantra* is some kind of *chhanda* (hymn) in general. The types of *chhanda*, such as – *tryuṣṭupa*, *anuṣṭupa*, *gāyatrī*, etc are often cited along with the names of the *ṛṣis* and the deity for each hymn of the Vedas. The *chhanda*-type specifies



the mode of pronunciation and the rhythm, amplitude and tunes of chanting of a *mantra*. Like a particular radio signal is received only at the corresponding frequency, meditative chanting of a *mantra* also is perfected only by practising it according to its specific *chhanda*-pattern.

The *rishis* state –

*Abhi Swaranti Bahavo Maniṣiyo Rājā*

*Namasya Bhuvanasya Ninsates |*

– Rig Veda 9 | 85 | 3

**Meaning:** Many eminent spiritual persons call the Almighty God, the Supreme ruler of the universe through the medium of musical *swaras* and find Him by this wonderful linkage.

Another *mantra* implies that grasping and practice of *Jñāna Yoga* and the *Karma Yoga* are difficult for most people in general. The connection of the *Bhakti Yoga* developed through the heartiest feelings of compassion, sacred love and devotion offer rapid success in divine realization. Music gives significant support in awakening of the pious sentiments of devotion that are essential in the *Bhakti Yoga*.

*Swaranti Twā Sute Naro Vaso Nireka Ukithanaḥ |*

– Rig Veda 8 | 33 | 2

**Meaning:** Oh, Disciple! You have come to me with an inner urge for spiritual development. I guide you the adept way to reach God; if you call Him through heart with (devotional) music, God will be manifested in your heart – in the deepest core of your emotions.

A quote in the Puranas states that the blissful heart of God Brahma inspired Him to sing. In this state (of singing) the *Gāyatri Mantras* emerged (with the evolutionary impulse) of his manifestation (as the creator of the entire universe) –

*Gāyatrī mukhādudapata Diti Ca Brāhmaṇam |*

**Meaning:** Because it was generated in a state of *gāna* (singing) through the (four) mouths of God *Brahmā* hence it was named *Gāyatrī*.

While investigating the visible and the latent effects of music, the ancient Indian *Yogis* had found such a vast treasure of *siddhis* (supernatural potentials) and spiritual attainments that they had to compile a separate *Veda* to describe it. This *Veda*, namely, the *Sāma Veda*, contains the secrets of the immense power of music whose decipheration and practice can enable an ordinary human being to elevate his inner potentials up to the high realms of divinity.

The quest for understanding and analyzing the effects of music has not diluted even in the modern world of materialistic developments. Research in the science of Music, like that in any other branch of science is being pursued systematically in many parts of the world. Series of experiments have confirmed that – if humane virtues and intrinsic happiness are to be preserved in this extrovert world, some association with soothing music in day-to-day life would be inevitable. Music is often compared with true love – both are creative powers; both have tremendous effects on the *jaḍa* as well as the *chetan* components of life.

“Music is the best mode of activation of the inner self. Therefore, one should always sing with a musical instrument” – opined the noted philosopher and mathematician, Pythagoras. Dr. McFaden has found vocal music (singing) as more effective than the instrumental music. McFaden's conclusions seem to be based on analysis of healthy effects of music on the physical body alone. The Pythagorean views sound more appealing in terms of mental bliss. Still higher is the level of the soul about

which the great poet and musician Rabindra Nath Tagore writes – “If there is any description and live expression of heavenly beauty then it has to be music only” Rustin has honored music as an extremely important means of awakening of the innerself, strengthening of character and development of art and creative hobbies.

Different opinions of the experts are based on their individual experiences. Conclusion based on collective consideration of such views implies that – music in its Natural enchanting form is endowed with all the elements essential for overall development of the body, mind and soul. That is why the *Samgīta Śāstra* (ancient texts on comprehensive aspects of music) was given significant importance by the *rishis* (Indian sages of yore). The Sāma Veda stands as an evidence of their dedicated efforts. All the *swaras* (notes of Indian classical music), *tāla* (rhythms), *laya* (amplitude), *rāga* (tune), *chanda* (hymn or the chanting pattern), *gati* (frequency), *mantra* and *swara chikitsā* (sound and music therapies), *nṛatya* (classical dances), *mudrā* and *bhāva* (modes of mental and emotional expressions in classical dances and music) have emerged from the decipheration of the knowledge contained in the *Sāma Veda*.

The Indian *Yogis* of yore had shown that no power of the world could match with the limitless potentials of the *swara-sāadhanā*. The supernatural effects of perfection in this *sāadhanā* were also seen in the later periods of the Indian history. Noted among these are Tansen and Baiju Bavara – the great musicians and singers of the Mogal era.

Once upon a time, an extraordinary musical contest was organized in the state council of the Mogal king Aqabar. The competition between Tansen and Baiju was the star-attention.

The concert was arranged in a forest near the city of Agra. It is said that when Tansen sang the *rāga Toḍī*, a group of deer came running, attracted towards him. In the state of emotional absorption in the *rāga*, Tansen had put one of his necklaces in the neck of one of those deer. But this broke the continuity of the musical flow, which had hypnotized the deer and so the latter ran away. By his performance of *rāga Toḍī*, Tansen had demonstrated that animals also have a pulling affinity towards music. During his turn, Baiju Bāvarā sang the *rāga Mṛaga Ranjani Toḍī*. Surprisingly, this time only the particular deer that was wearing Tansen's necklace came running near the stage. In this experiment, Baiju had proved that the subtle vibrations of *Śabda* – triggered by specific music could be used as powerful signals to reach any distance, in any direction and can influence the target there.

Baiju Bavara, bestowed with the angelic inspirations of his Guru Haridāsa, had relieved the King Rāja Singh of Chandri (in Guna, M.P.) from insomnia by singing the *rāga Puriyā*. Pt. Paluskar and Dagar Bandhus were also known to be blessed by extraordinary expertise in vocal music. The use of *rāga Dipaka* for kindling the lamps, *rāga Śrī* for the treatment of tuberculosis, *rāga Bhairavī* for generating soothing peace among the masses and *rāga Śamkarā* for stimulating courage and enthusiasm in the soldiers proceeding for a war – is also described as a common practice in the history of music in India since the pre-historical times. *Rāga Malhāra* was sung in the season of autumn in every part of India; such was the influence of this *rāga* that even the stubborn, cruel and hard hearts used to be driven along its cheerful flow.

During those times of history, life in India was amiable because of the incorporation of the *swaras* and tunes of music in

every aspect. We can find many examples of the significant role of music even in the relatively recent times in the Indian history. For instance, only a few years ago, an amazing effect was observed when respected Pt. Gujjarama Vāsudeva 'Rāgī' of Hoshiyarpur, Punjab was presenting a musical concert on a hill near the temple of Goddess Cintāpurṇī. When Pt. Rāgī sang the *rāga Malhāra* in a state of emotional absorption in the devotion of the Goddess, the otherwise sunny atmosphere of the day was transformed into a cloudy one. And soon it began to shower heavily at that place. People were overwhelmed to see the live demonstration of how an expert *yogi* of classical music could control the physical elements of Nature.

In yet another recent incident, number of people had witnessed how the *vīṇā* mastero Suraj Khan had completely cured the Nawāba of the state of Ramapur in just few days by regularly playing *rāga Jaijaivanti* on his *vīṇā* near the Nawāba, who was suffering from a paralytic stroke.

Unfortunately, the present era has not paid due attention to preserve the precious treasure of ancient classical music. The great achievements of our own history have now become imaginary, myths or hear-says for us. The growing popularity of cheap filmy music has further deteriorated the situation. If instead of 'market oriented' immature and incomplete music, the classical music was given due importance, perhaps some influential and resourceful persons would have come forward to arrange for proper training schools dedicated to inspire and enable the younger generation towards the *sādhana*s of classical music.

The classical art of dancing was also given high recognition in ancient India. God *Shankar* (*Shiva*) is named as *Natarāja* in the scriptures because He is believed to be the originator and the

Omniscient expert of this spiritual art. The classical dances and tableaux like *Nṛatya Rāsa*, *Maṇipurī*, *Kathkalī* and *Bharat Nāṭyam* were quite popular until the past few decades. Pt. Jawaharlal Nehru used to feel thrilled by watching such classical dances. In his views – classical and folk dances offer cheer and activity and thereby teach us that the pleasure of life is not confined to materialistic successes only.

Renowned writer, Munshi Premchand has expressed his views on music as – when the agony of the mind crosses all limits and finds no solace even in crying and weeping then it comes under the shelter of music. In spite of their effective roles in giving enchanting effects, creative enthusiasm, cheer and peace, these streams of the classical arts have not got the right place in our lives today. It is a matter of shame that India, which was earlier known to be the founder expert of the classical arts of music and dancing, is losing its own talents and knowledge whereas, some other countries are giving respect to these branches of Indian heritage. Their endeavors have also begun to fructify in several ways.

Each one of us who knows the importance of music (and dance), should make an attempt to revive the status of these foundational elements of Indian classic art and culture and strive to learn some kind of classical vocal or instrumental music or dancing.

It should be noted that practice of classical music is like a *yoga sādhanā*. In the vocal form of this *sādhanā*, the vibrations of the inner sound are lifted from the naval region up to the *Brahmrandhras* where these vibrations are tuned with the *tāla* of the music and are electrified by the energy of the mind before the flow of voice *emanates* from the mouth. This type of latent *swara* generates circular flows (of the energy of *Śabda* inside the

body similar to the eddy currents in water. This flow, containing a creative power of *Nāda*, could be channelized in specific direction with the help of suitable *rāgas* that operate upon the mind like the *mantras*.

The *tantra* mechanism of the ancient science of vital energy and sound works on the principle of instantaneous generation and use of concentrated power (of *Śabda*) and is therefore supposed to be risky as the *sāhaka* often finds it difficult to bear the 'jerks' of the powerful reactions of such experiments. The practice of chanting the Vedic *mantras* in classical *rāgas* or any endeavor of the *sāadhanā* of the *śāstriya samgīta* (the Indian classical music) is, on the contrary is free from such risks. It is absolutely beneficial like – the milk of cow, the study of *Gītā*, the upāsana and meditation of the supreme divine power of *Gāyatrī* or the *japa* (meditative chanting) of the *Gāyatrī Mantra*.

Music (*Nāda*) resides in our souls. If we let our lives firmly linked with it, we would never be deprived of spiritual enlightenment and heavenly bliss. The *sāadhanā* of *swaras* (musical notes) is indeed the *sāadhanā* of *Śabda* and *Nāda* which carries the soul up to the highest realms of experiencing the eternal syllable (*akṣara*) of the *Brahm*.



## Vedic Hymns and Music

**I**ndian classical music is found to have deep effects on inner sentiments. Although the *Vedic Mantras* could be well expressed vocally as prose (e.g. in *Yajura Veda*) or verse, the method of singing them as hymns was given prime importance by the *rishis*. Thus were evolved unique spectrum of *Vedic swaras* and the gamut of chanting patterns for *mantras*.

The three streams of expression of the esoteric knowledge encoded in the *Vedas* are termed as *Veda Trayī*. The contents are divided into four *Vedas* that are classified according to the type of *mantras*. The Riga Veda consists of the *mantras* of the hidden knowledge and prayers of -- the eternal powers of *thee* and the genesis and expansion of divine virtues. The Yajura Veda contains the *mantras* of the philosophy, science and the methods of performing *Yagyas* (*Yajña* – the fire ritual). The Sāma Veda is a collection of the *mantras* containing the secrets of *swaras*, music and the chanting patterns for all the *Vedic* hymns. The Atharva Veda consists of the *mantras* of *Brahm Jñāna* – ultimate spiritual knowledge of the Supreme. The *Veda Trayī* classification according to the possible modes of expressions of *mantras* is



found to be more suitable for describing the associated *sādhana* practices in the *Vedic* science of spirituality. Of these, the stream of knowledge pertaining to the rhythmic enunciation and chanting of the specific collections of *mantras* and the *Sāma Veda* is of great significance for the human society, as it directly deals with the science of emotions and music, which hold the essence of human life.

Music is indeed a divine boon for the human society. The Almighty has bestowed it upon us as a natural means for awakening the inner sentiments, improving the creative powers and concentration of the mind and as a powerful remedy of emotional sufferings and sorrows. The *Śāstras* quote -- '*Swareṇa Samlliyate Yogī*'; meaning: The *yogis* get immersed (into divine sentiments) by practicing the *swaras* - the musical notes.

The *rishis* have also expressed their inspirations in the *Vedas* as - '*Abhiswaranti Bahavo Maṇiṣiṇo Rājānamasya Bhūvanasya Nimsate* |' (Riga Veda 9.58.13). Meaning: 'Many spiritually elevated personalities focus their *swaras* (during emotional communication via practicing the *śāstric* compositions of music) towards the Almighty "King of the Universe" and find Him through such musical linkage'. Yet another *mantra* implies the important contribution of music in awakening the devotional feelings - '*Swaranti Twā Sute Naro Vaso Nireka Uktinah*' (Riga Veda 8.33.2). Meaning - 'Oh Disciple! you have come to me with the sacred desire of enlightening your inner self. Let me tell you the ways of reaching *thy*-light.... If you call *thou* through your sentiments accompanied by pure music, *thy* shall illuminate your inner heart with divine love [.....]'.

The *rishis*, while investigating the visible and the latent effects of natural *swaras*, had discovered astonishing powers of

music. Their spiritual experiences and realizations of the unlimited sublime reflections of the eternal music (*Nāda*) are expressed in *mantras* of the Sāma Veda. The Sāma Veda contains divine knowledge about the miraculous spiritual power of music that can effectuate a vivid connection of the individual 'self' with the supreme divine self.

The renowned poet and musician of our times, Nobel Laureate Ravindra Nath Tagore had once commented that if there is a visible and alive form of heavenly beauty then it must be Music and Music alone. Several experts in the western world have also realized, in the present era, the magnificent power of classical music. They describe the creative power of music as similar to that of love and recommend that music is essential for happiness in life. Noted philosopher and mathematician Pythagoras had asserted that – “as music is the best source for the upliftment of the soul, one should often practice singing with a company of appropriate musical instrument” Dr. MacFeden adds to it that the effects of vocal singing alone could also be equally fruitful.

Realizing the importance of music, the spiritual experts and *Vedic* scholars of today must try to study the deeper aspects of music as encoded in the Sāma Veda. The *rishis* had 'devised' specific *mantras* for the creation and composition of music. These *mantras*, cited in the Sāma Veda, are regarded as the core for the generation and expression of all the *swaras* (musical notes), *tāla* (rhythms), *laya* (amplitudes), *rāga* (tunes, the compositions of accents), *gati* (tones) and the *Nratya Mudras* and *Bhāva* (moods and steps of classical dancing).

About twenty-two distinct expressions (called *Śruti*) of the power of eternal music have been cited in Sangīta Ratnākara as

unique sources of specific creative effects (of music) on human body and mind. These *śruties* are named as -- *Tivra*, *Kumudwati*, *Mandā*, *Chandowati*, *Dayāvatī*, *Ranjani*, *Ratikā*, *Raudrī*, *Krodhā*, *Vajrikā*, *Prasāriṇī*, *Prīti*, *Mārjanī*, *Kṣiti*, *Raktā*, *Sāndipinī*, *Alāpinī*, *Madantī*, *Rohiṇī*, *Ramyā*, *Ugrā* and *Kśobhiṇī*. The *sapt swaras* (octave of Indian music) and hence the perceivable expressions of music have originated from these *śrutis* as listed below.

<b><i>Swara</i> (identity)</b>	<b>The Śrutis associated with this <i>swara</i></b>
Ṣadja (sā)	Tivra, Kumudwati, Mandā, Chandowati
Raṣabha (re)	Dayāvatī, Ranjani, Ratikā
Gāndhāra (ga)	Raudrī, Krodhā
Madhayama (ma)	Vajrikā, Prasāriṇī, Prīti, Mārjanī
Pañcama (pa)	Kṣiti, Raktā, Sāndipinī, Alāpinī
Dhaivata (dha)	Madantī, Rohiṇī, Ramyā
Niṣāda (ni)	Ugrā, Kśobhiṇī

Different combinations and compounding of some basic chemicals are used in the synthesis of different medicinal drugs. Similarly, different compositions of the *śrutis* - via different combinations of the *sapt swaras*, can be used for creating desired effects on the body and the conscious and subconscious mind. The *rishis* being erudite scholars of the Sāma Veda knew this subtle science of *Nāda*. They had attained the spiritual power of eliminating the ailments and sufferings of all living beings and controlling all forms of matter and life indwelling in Nature by adept chanting of the Vedic hymns (*mantras*).

What is the science of *swaras*? Why music has an impact on the material and conscious forms of Nature? Detailed guidance on such queries can be sought from the spiritual experts of the *Nāda Yoga* who, in deep state of trance, have experienced the

omnipresent music of Nature and have realized the evolutionary impulse of *Nāda Brahm* that created the ever-expanding universe.

The sublime *Anāhata Nāda* of *Om̐kāra* is said to be the source of this eternal music, which is analyzed in the *Sāma Veda*. The quotes '*Prañavaḥ Sarvavedeṣu*' (Gītā 7.8) and '*Om̐kāraḥ Sarvavedānāma*' (Mahābhārata Aśwamedha Parva 4.4.6) also state the importance of *Sāma Veda*. The chanting of *Om̐kāra* and *Udgītha* are synonymous. *Udgītha* is supposed to be an integral part of the *Sāma Veda*. The Chhandogya Upanishad (1.1.2) states -- '*Vācaḥṛigrasaḥ, Sāmarasaḥ Sāmnaḥ, Udgītho Rasaḥ* |'; Meaning: The essence of *vāñī* (power of 'speech'/vocal expression) lies in the *ṛicā* (a Vedic hymn). *Ricā*'s essence lies in *Sāma* and *Sāma*'s essence lies in the *Udgītha*. It further affirms (Chand. Up. 3.3.1) -- '*Sāma Veda Eva Puṣpam*'; meaning: '*Sāma Veda* is the only flower (of the beauty of music) in the beatified bouquet of the Vedas'. A flower, though small, is a symbol (and source) of the growth and blossoming of a mighty tree.

Sages of the Vedic Age had devised *Sāma Gāna* - the chanting patterns of Vedic hymns - as a mechanism for sublimating the inner sentiments up to the deepest depth of divinity. *Sāma*, the musical expression of *Śabda*, represents the ultimate creative powers of the Omnipresent eternal consciousness force - *Brahm*.



## Extrasensory Science of Music

Music is an essential ingredient of all cultures and languages the world over. Life would become boring, dry and dull without its melody. The knowledge of music, literature and arts is counted as the most important among all faculties bestowed upon the humans. It is a source of delightful rejuvenation that makes human life different from other species.

Thermal effects excite activities in the *jaḍa* (inert matter) elements and music acts as a motivating force in boosting the *chetan* (having consciousness) components of Nature. Scientific investigations into the root cause of activities at the sub-atomic and subtler levels have also shown that an omnipresent 'sound' (rhythmic vibrations of energy waves in the 'eternal' field around the Higgs Boson, for example) triggers the motion of the particles like the electrons that subsequently give rise to different activities in the physical world. This observation brings the scientific theory close to the vision of the ancient Indian seers of the eternal *Nāda* (musical sound) of *Om̐kāra*.

The script form of the syllable of *Oam* was designed by the *ṛiṣis* as a *swastika* to indicate its omnipresent rhythm that is uniformly pervading in all directions. This sign was later on adopted in the Sanskrit script in its present form.

The entire game of Nature and the manifestation of consciousness in the animate world are based on the eternal waves of the omnipresent transcendent music – the rhythmic flow of the power of *Nāda Brahm̐*. Our brain constantly emits impulses at the rate of about 30 to 31 (thought) waves per second. When we watch a movie, about 16 visual images pass in front of our eyes in a matter of just a second, but we do not recognize them distinctly. What we watch as a single movement of a picture actually corresponds to the process of hundreds of visual signals but our eyes do not grasp them separately. The same is true of the brain signals. The collection of the uncountable impulses emitted every millisecond or so makes a single thought or signal that is perceptible by the nervous system.

The neural excitation and hence the release of brainwaves is also regulated by certain kind of subtle music of *prāṇa*. The current of *prāṇa* continuously strikes the *sahasrāra chakra* and produces a harmonious latent sound (or subtle music). This is described by the *ṛiṣis* as the '*soham*' sound. The realization of this sound is the *Ajapa Japa* (silent recitation) of the *Gāyatrī Mantra*. The neuronal excitation and the activities of the brain would cease if this continuous background sound of '*soham*' is stopped even for a fraction of a second. This would lead to an instantaneous disruption in the bioelectrical currents in the brain and would result in immediate death.

*Accomplished Yogis* have 'visualized' the internal functional structure of a human body as a *sitāra*. The *sitāra* depicted in the

hands of Goddess Saraswati symbolizes its spiritual importance. It implies that Goddess Saraswati – the divine power of discerning and righteous intelligence - appears in the subtle body, which has the structure similar to that of a *sitāra*. The *sitāra* in the subtle body of a human being consists of the 'threads' of the *Idā*, *Pingalā* and *Suṣumnā Nāḍīs* that are mutually connected on one end in the coil of *Kuṇḍalinī*, which is lying dormant in the *Mūlādhāra Chakra*. The *Śat Chakras* are different points where this *sitāra* is vibrated by the *prāṇa* to produce specific *swaras* of the eternal music of *Omkāra*.

The experts of *Prāṇa Vidyā* have found that a sound of *Lam* is generated from the *Mūlādhāra Chakra* (the extrasensory energy-node (ESEN) in the Pelvic Plexus). The sound of *Bam* emanates from the *Swādhiṣṭhāna Chakra* (ESEN in the Hypogastric Plexus); *Ram* from the *Maṇipūra Chakra* (ESEN in the Epigastrium Plexus); *Ṣam* from the *Anāhata Chakra* (ESEN in the Cardiac Plexus); *Ham* from the *Viśuddha Cakra* (ESEN in the Carotid Plexus) and *Oam* from the *ājñā Chakra* (the 'third eye'). These six *swaras* are continuously produced in the subtle body throughout the life of a human being. The musical notes of “*Sā, Re, Ga, Ma, Pa, Dha, Ni*” are used to constitute different compositions of music in the physical instruments. Similarly, the above- mentioned combinations of *swaras* and the subtle *Nāda* of *Omkāra* are 'played' on the sublime *sitāra* existing inside the human body. The sound-waves produced by the associated vibrations in the subtle body constitute a source of immense inner power.

Different compositions of the above-mentioned latent *swaras* dominate all the natural activities of the brain and the mind. One's inherent talents, inclinations, interests, emotions, convictions, internal desires, intelligence, imaginations, faith

etc are governed by these compositions of the transcendent music and are reflected accordingly in his character, mental tendencies, virtues and deeds. This 'spiritual music' is our eternal guide. It motivates life upwards, downwards, backwards or ahead as per its tuning in the individual self. Spiritual *sāadhanās* based on meditative chants of *Omkāra* are aimed at suitable tuning of this music for gradual evolution of the Self.

Physical manifestation of the music of the subtle body is found in the internal sounds of different rhythmic activities of the gross body. A little perturbation in the rhythms of the body sounds (like that of heart beating or pulsation) corresponds to a disorder in the specific bio-activities. Experienced physiologists attempt to recognize its pattern. Its identification (e.g. by echocardiogram) helps them diagnose the malfunctioning of the associated organ(s).

The subtle as well as the gross body of the cosmos also vibrates continuously by the omnipresent flow of the music of *Nāda Brahm*. The entire world is pervaded by 'music'. It is up to us to make use of this all pervading resource either like nectar – by creative applications or, like poison – by perverting its immense power in activating downward, beastly instincts.

Every human being is basically fond of *rasas* (that which induces 'emotional secretion' or feeling of joy). Harmony of different kinds of *rasas* helps healthy progress of life in general. The melody of music is supposed to be the most natural kind of *rasa* associated with the evolution of consciousness. Be that vocal or instrumental, melodious music does induce a soothing flow in the body and mind. Absorption in this *rasa* almost hypnotizes the singers (musicians) and the audience. The lyrics, composition of *swaras*, tuning and voice (or the sound of the



instrument), all contribute to the quality of this *rasa*. Music, in one form or the other, is liked in every part of the human society ranging from the uncivilized tribal to the elite levels of the civilized and the educated ones. In the tribal areas, where the light of modern science and education has not yet reached, music has been existing since ages, because music is developed by the internal inspirations. One may learn or create it on his own. Nature has been graciously intelligent in granting this enchanting talent to the human race.

Scientific research has shown that the bliss of music is a latent food for all living beings. This element 'electrifies' the activity of consciousness. Ongoing experiments have shown encouraging results in increasing the physical power and abilities of many animals by the impact of certain kinds of music. This has led the scientist to think of music as a potential source of 'energy' In the initial period of its discovery, electricity was used for the purpose of holding (attracting) or throwing (repelling) different objects with force. Advancement of research in the related fields of science has deployed this energy as the principal source for conducting innumerable activities in the physical world. Similar might happen with the power of music as well. Thus, the immense power of music will not only be employed as a source of ecstatic enchantment or for uplifting the physical, mental and spiritual health, but one day, it would also become an indispensable source of energy like electricity.

The special composition of *swaras* specified for the *sāma gāna* of *veda mantras* are so perfect in activating different streams of omnipresent sonic energy that sometimes during some *tāntrika* experiments, a little mistake in the rhythmic chanting patterns of some special *mantras* might result in giving

rise to altogether opposite effect, if the erroneous pattern corresponds to an energy current (waveform) that is different from that aimed for.

The *Vedic sages* had carried out intense research on the science of *swaras* and had also devised several chanting patterns that would always be useful for every one even if practiced by the people who are ignorant about the sensitivities of the *swaras*.

In the interior parts of India, one might still find some 'unbelievable' uses of musical effects such as – removal of poison after snake's bite by a specific rhythmic sound produced by striking a bronze plate; the cure of septic abscess and mumps etc, by music. The soothing effects of music are also found to treat a variety of mental diseases, including the psychic fear of a ghost etc.

Dr. Mesmer, the founder of the therapies based on hypnotism, used to play a very soft and tinkling music to bring the patient's mind to a calm state and to harmonize the neuronal activities so that hypnosis could operate smoothly. Some of the modern medical practitioners also opine that listening to melodious music is very useful for people suffering from neurological disorders or mental diseases. The sound waves oscillating in specific rhythms of *swaras* (notes of the musical octave) have been found to activate the growth of WBCs and RBCs during sickness. Due to an associated improvement in the defense mechanism of the body, several severe diseases can also be cured without inducing any side effects by such applications of music. [Interested readers may refer to the *Journal of Music Therapy* for research details.]

It is said that for constructive impact on the ambience, chorus or collective singing is more effective than individual

ones. When many people sing together at a coherent frequency, the superimposition of their *swaras* creates a unique current of joy that generates internal peace and bliss in the hearts of all singers as well as the listeners around. During the festival of *Holi*, all the residents of a colony individually bring small numbers of dry woods and collect them to burn a huge *holi* and benefit from its intense thermal energy and disinfecting the surroundings. If each family had burnt its own small *holi* then none would have gained anything from its short-lived flames. Collective efforts always bring multiple compounded effects. The same is true of the effects of music.

Collective singing during the processions, rallies or military-marches trigger manifold effects of the motivating message imbibed in the lyrics. Collective singing of prayers and chanting of hymns during the religious ceremonies similarly offer multitudes of the benefits associated with the individual *swara* pattern. Deep mental absorption during the devotional musical programmes of *bhajan* and *kīrtana* clearly demonstrate such effects. Enthused repetition of few lines of a simple devotional verse in a musical tune in an emotionally stimulating style is called (*Sam*)*kīrtana*. The singers and the audience all get immersed in the melody of such songs and are often seen swinging their bodies tuned to the rhythm of the songs. The *samkīrtanas* are found to be very useful in activating natural vibrations in the nervous system and thereby offering intense peace and happiness. The tradition of collective singing observed in many Hindu families during the religious festivals or social occasions of wedding etc is indeed a healthy practice in this regard.


When we use music for specific creative or scientific effects, we must note that it should be designed according to the basic

principles of the science of *swaras*. Undisciplined uttering of some songs in haphazard patterns of *swaras* cannot be regarded as proper singing; it would be no better than crying or screaming. Performing vocal or instrumental music is an art. One has to practice perfection over the musical notes, consistency of the amplitude and tune, etc, before learning this art. People who regularly practice good music are protected from the psychosomatic disorders that could give rise to epilepsy, nervous breakdown, hysteria, headache, impotency etc.

One must also be cautious about the quality of music along with its sincere practice under proper disciplines. For instance, the singing of vulgar, erotic or demoralizing songs would create corresponding excitations or depressions in the delicate functional centers of the brain and inscribe the related adverse tendencies in the subtle cores of mind. Dedicated practice of sacred classical music of inspiring quality is certainly fruitful like a *Yoga Sādhana*. Such music is the key to creating vivacity and peace in the conscious mind and purification and awakening in the subtle cores of the unconscious mind.



## Immense Power of Music

 Collective singing plays important role in up-keeping the mental and physical health of people in general. Old time Indians traditionally used to sing devotional songs collectively en route to the temples or during pilgrimages. Even now, many devotees sing while doing a *parikramā*. The people of Bundelkhanda sing touchy songs of *viraha* (separation from the beloved) while returning from a pilgrimage of places like Mathura; some devotees of Lord Shiva using '*Bholā Bama Bama*' etc. They believe that they carry the religious virtues from the holy places through the medium of music. Singing, dancing and other musical performances used to be an integral part of all festivals and religious and social functions in the old times. On special occasions, almost the entire nation used to 'flow' in the 'currents' of musical melodies. It was due to the effects of these collective waves of *swaras* that the evil elements were eliminated from the subtle environment and the atmosphere was also purified. As a result, the propensity of various diseases used to diminish, agricultural growth was healthier and the trees used to blossom with tastier fruits.

Today's society has experienced an increasing trend in the occurrence of diseases and adoption of untoward habits by people from all walks of life. Partly one of the factors responsible for this could be the lost interest in music and practices of collective singing.

Several medical experts of the present times opine that – when several people sing together, the collective flow of superimposed *swaras*, along with their joyous sentiments, generates a 'current' of alacrity and cheer in the ambience. This amplifies the happiness and internal peace in the hearts of all the people around. Occurrence of such positive effects can still be seen in the villages of India in the month of *Phāguna* when all the villagers collectively sing the folk songs of *phāga* during the festival of colors and even the children and old fellows swing with joy and enthusiasm like the youths.

Whenever we listen to music with mental concentration, our limbs begin to oscillate with its melody. This shows that our inner sense has got an intimate natural relationship with music. It is said that the lively glow of the soul might wane in the inner-self in the absence of serene music. Every aspirant of self-development should benefit from the creative effects of (vocal or instrumental) classical music. The paramount importance given to the *Nāda Sāadhanā* in the ancient text of *yoga* also reflect the eternal place of *swaras* in human life. A *swara yogi* (a *sādhaka* of music) is supposed to attain the state of self-realization more easily as compared to the *sādhaks* of the other kinds of *yoga*.

The faculty of music is bestowed upon human life as a special boon of the Almighty. Material gains may be difficult to be acquired by everyone but the joy of music is freely available to all humans like the natural gifts of sunlight, water and air. Everyone can try to protect his physical body, mind and the

soul from the evil elements by taking support of the great power of music.

An internationally recognized singer, Enrico Caruso writes – “whenever my ears were echoed by the melody of music, I used to feel that my soul has got linked with the sublime source of life. In this state, I used to forget all pains of the body and mind; even thrust, hunger and sleep had no chance to disturb my engrossment. This rare experience bestowed intense rest and unique delight. Ever since I experienced this immense potential of music, I had realized that there is no boon of Nature for the human society which can be regarded greater than music in any respect”

Caruso remained a dedicated *sādhaka* of music throughout his life. In the initial stages of his practice, one of his teachers had even told him that his voice is not suitable for singing and that the amplitude of his *swaras* is not stable. But, Caruso continued his strives with unperturbed confidence and overcame all hurdles by a long-term dedicated practice (*sādhanā*) of *swaras*. He attained eminent expertise in vocal music and proved that music is not related with the audible quality of voice or the crude sound of a musical instrument, rather, it has an inherent relationship with the heart – the sentiments and emotions. Anybody could be blessed by this divine gift by awakening the inner emotions.

Music initiates spiritual enlightenment by triggering the realization of the subliminal world of emotions. As the real effects of music deal with the inner center of mind and heart, the extrovert approach of the occidental world has not yet been able to make deep investigations in this field. Nevertheless, analysis of the gross effects on the human body and mind and on animals and plants itself has shown such significant results to

the western scholars that they are also convinced about the immense power of music. So much so that full-fledged research journals are dedicated solely to this topic – for example, the *Journal of Music Therapy*.

Once, while a patient was being taken to the Operation Theater in a hospital in England, he heard a melodious tune of music, which was being played in a nearby building. The influence of this music on the patient's mind was so immediate that he got up from the stretcher and went straight up to a window to look for the source from where that musical flow was emanated. His doctors were surprised to note that the impact of music had suppressed his ailments.

Many dental surgeons in the USA arrange to play certain kind of music with the help of an automatic electrical instrument during the teeth removing operations. They have found that their patients do not feel the pains because of the 'magical' effects of the background music. Several experiments have also shown that labor pains of pregnant women are also reduced by the effect of inducing music. The '*torentala*' dance of Italy is popular because the combined impact of the music of several instruments played simultaneously along with this dance is found to pacify mental disabilities and insanity.

The Indian history is full of such examples that demonstrate the immense power of classical music. Even the vibrations of the light music generated by *bhajans*, *kirtans* and some musical instruments are found to have soothing effects on the human body and mind. People, not having an expertise in classical music, could also benefit from such effects.

The process of singing *śāstriya rāgas* is regarded as a physical exercise of *yoga*. Not only the tongue, mouth, lips and palate, but also the portions of the nerves from the naval up to



the brain are stretched and compressed regularly in this exercise. This way, the entire body above the waist is subjected to a rhythmic exercise in this practice. This movement also stimulates the neurons. The practice of singing in the *ḍruta*, *vilambita* and *madhyama laya* causes specific pressures on the tongue, chest, heart, breathing pipe, vocal cord and the nervous system. Each of these body parts becomes healthy and strong by a regular exercise of singing. The lungs are cleaned, so the possibility of the diseases like tuberculosis is eliminated. The gums and the stomach also benefit from the exercise of singing.

When singing or dancing is practised along with certain musical instruments, it involves rhythmic movements of the head, neck, shoulders, chest, stomach and the limbs; the blood flow is harmonized thereby that keeps the body energetic. The instruments like flute (*bānsurī*), lyre (*bīna*), clarinet (*śahanāī*) etc are played by controlling the wind flow from the mouth and therefore help strengthen the tongue, wind pipe and the lungs. Because of a rhythmic stimulation of the neuronal circuit and of the nervous system as a whole, singing (or playing on an instrument) of the classical *rāgas* is found to create positive effects on the psychology too.

Listening to the vocal or instrumental music is not less beneficial than practising it. Its soothing effects generate activity, enthusiasm and liveliness in the listeners. The impact of music on the listeners help them get rid of a large number of physical and mental ailments or disorders including - excessive thrust, burning sensation in the body, weakness, drowsiness due to some toxic effects or due to intoxication, yellow fever, frequent urination, loose motions, high blood pressure, ear pains, asthma, cough, irregular heart beating, feverishness, insomnia, dullness, mental instability....etc. The process of

recovery is slow but consistent. How much time one would take for complete cure depends upon the type and the extent of the disease. Nonetheless, it is sure that regular touch with melodious music offers significant support in fast recovery.

In general, the singing of devotional songs, auspicious hymns, prayers, the songs of maternal affection, singing in front of a child, collective singing at the places of natural beauty, near a pond or on a bank of a river or in temples etc – are found to have greater impact on the physical and mental potentials.

The effects of music have been found to be positive on the animals too. It is seen that by the hypnotizing impact of the *nāda* (music) of a *veṇu*, the snakes become humble and dance in the tune of its melody. In several forests the hunters trace the deer by playing the lyre to attract them. Sonorous music is played near the cows at the time of milking them. The milkmen keep there radio sets on near the cows so that the effect of music would stimulate the neurons of the cows resulting in higher amounts – nearly 15 to 20 % extra, of milk released by them. It is believed that by further investigations, suitable musical patterns would be designed to influence the more violent animals like the bears, tigers and lions.

The effects of music are also noticed in the botanical world. Dr. T. N. Singh, head of the department of Botany in the Annamalai University has, with the assistance of Ms Stella Punaiya, successfully conducted several experiments of stimulating the different species of plants and increasing their growth rate by special effects of rhythmic sound (of music). Some other experiments of the agricultural sciences have shown that the production of the crops of rice and bananas increase along with a rise in the weight of individual pieces by the effect of musical 'currents'

The humane sentiments of generosity, compassion, selfless service, mutual harmony and serene love are awakened by the practice of listening, singing or playing classical music. Music is also being used as a hypnotizing tool in some psychological treatments and also in some surgical operations. American scientists are actively engaged in research on the plausible effects of music-therapy.

It is said in the Indian *Śāstras* that the knowledge of music described in the *Sāma Veda* is adeptly implemented, it may draw the entire animate and inanimate world into a state of trance. Let us hope that the modern world would make serious attempts in deciphering this latent knowledge and thereby evolve constructive applications of the immense power of music.



## Music – A Source of Rejuvenation

**M**usic in the modern era is largely regarded as an important art for entertainment and mental peace. This attitude has now gained newer dimensions as some scientists have found soothing music as a source of boosting the vital power. If thorough research is pursued in the direction of deciphering and analyzing the different 'latent' effects of music, this stream of knowledge could also be deployed for the development of a healthy and happy society.

The popular music as it is practised and 'enjoyed' by the masses in India today is not based on the deep science of *swaras*. Rather, it is often like 'fashionable' charm or 'craze' of ~~some~~ hard beat western musical patterns that has hypnotized the masses by way of the films and audio/video albums. The mixed culture music aimed mostly at momentary sensual excitation and pleasures stimulates erogenous feelings and poses significant risk to weakening the socio-cultural character of its fans. Emotionally soft youths have been the major targets of this adulteration of music.

Illusions about classical music must be eliminated from the young minds. Our ancient sages (*rishis*) had foreseen that the tremendous power of music, if misused, would lead to disastrous effects on human psychology. They had therefore developed this faculty under the auspices of religion and spiritual philosophy and had recommended certain disciplines of *sāadhanā* for its practice and propagation. This by no means should be misinterpreted as though classical music is not useful or cannot be learnt by the common people.

The 42nd and 45th hymns in the Nada Bindu Upanishad mention that - "as the humming bee, while collecting the honey from the flowers, does not desire for the latter's fragrance, similarly, the mind absorbed in *Nāda* (eternal *swaras* of music) does not desire for any sensual pleasure. A snake engrossed in the melody of the music of a *bīna* forgets its fragility; similarly, mental concentration of a *sādhaka* of *Nāda* increases and his tendencies of sensual and worldly desires are gradually 'transformed' into creative hobbies and healthy sense of humor. If the agility of mind is compared with a deer or a water current then *Nāda* (source of music) would correspond respectively to - a net, used for capturing the deer; or, a strong shore which hinders the forceful flow of the water currents"

This Upanishad describes the power of *Nāda* immanent in music as a manifestation of the eternal power of the (*Para*)*Brahm*. It is mentioned here that by the *sāadhanā* of this *nāda*, the *sādhaka* is absorbed in such a wonderful music of the divine *swaras* that he begins to realize the entire cosmos as an activity of a single *Prāṇa*, a reflection of the *Para Brah*m.

Omnipresence of the *Nāda* (vibration of the eternal *swara* of *Om*kāra) is also affirmed by the scientific discovery of the sublime vibrations of 'energy waves' everywhere in the cosmos.

The continuous flow of this hidden sound gives rise to the orbital motion of electrons and originates all activities in the cosmos.

Our thought waves and the impulses of the brain are also basically motivated by the vibrations of *Nāda* although we do not experience them because of their supernatural frequencies. That these subtle vibrations continuously activate the human brain – becomes clear from the fact that every human being is always thinking (in the conscious or subconscious mind) about something or the other throughout his life; thus the sound of thoughts is there even in the silence.

As the realization of the thoughts is a reflection of the vibrations of the *Nāda Brahm* in one's own mind, the quality and strength of one's natural thoughts depends upon how well his brain has received those vibrations and how well his mind has reacted to the corresponding impulses. Shallow, inert or dull state of minds would only generate some gross (related with the physical state of the body) thoughts. But the pure, enlightened and awakened minds, trained to concentrate upon the subtle *Nāda*, would receive the divine signals more rigorously and therefore generate righteous thoughts – reflecting intense intelligence, matured prudence and foresightedness. Further refinement of the mind sets its receiver in tune with the frequency of the latent *swaras* of *Nāda* and the *sādhaka* gets linked with the divine inspirations indwelling in Nature and within his own consciousness and thereby enjoys eternal bliss. This is indeed the greatest spiritual bequest of the *sādhanā* of music. The spiritual masters describe that when the mind captures the subtlest kind of thought waves, it perceives the *anāhata nāda* of *Omkāra* and his soul unites with the *Para Brahm*.

## Music for Rejuvenation & Mental Elevation:

Of late, the scientific aspects of the *Śāstriya Saṃgīta* (Indian classical music) have also attracted occidental countries. Many enthusiasts – especially the youngsters in the developed countries like the USA, Britain, France and Russia etc are now learning this music. They have also experienced its positive effects in the physical (physiological) and psychological domains. As a consequence of this trend, quite a few of such youths are also learning some Indian languages. They feel that practicing the Indian classical music bestows immense peace.

Dr. George Stevenson and Dr. Vincent Peale, two distinguished psychologists of the USA have suggested a four-point remedy against mental stress. The three solutions they have suggested may be summarized as – (i) engage yourself in some physical activity whenever you are angry; (ii) in the instances of failure or upsetting situations, occupy your mind with the reading of inspiring literature; (iii) exercise regularly. According to their recommendations, these three solutions would be most effective, if they are complemented by the fourth, *viz.*, listening or practicing melodious music. The creative effects of good music not only offer mental peace but also shower the nectar of internal bliss.

Although the ancient knowledge and expertise of the Indian classical music that used to create supernatural effects (like kindling the lamps by the *dīpaka rāga*.... etc, as discussed earlier) is not available today in toto, some of its amazing applications are still alive in some parts of India. For instance, in the eastern parts of Uttar Pradesh, playing a special musical instrument is often found to neutralize the toxicity of snake's poison. In the interior rural parts of some other states, several kinds of physical ailments and mental sicknesses are said to be

healed by some experts through striking thin metal plates in different musical tunes. The harmonious balance of the five basic constituents (the *Panca Tatva*) in the body and the *tridoṣa* (imbalance of natural tendencies of the mind-body system as defined in Ayurveda) of *vāta*, *pitta* and *kafa* are controlled by the ups and downs of the *swaras* that also help maintenance of some *rasas* (secretary vital elements). This is found to result in excellent improvement in health.

Despite the nonavailability of complete knowledge about the ancient *rāgas*, singing of the *raga Basant* in the season of spring still exalts new enthusiasm and cheer in the singers and the audience. The practice of *rāga Bhārati* and *rāga Bhairavī* in the early morning indeed awakens devotional sentiments and thus helps purify the mind and upkeep its health. Today, we may not be able to watch any Tansen, being so much excited while singing the *rāga Dīpaka* that his skin would turn dark due to the heat generated by this *rāga*. (It is said that Tansen's complexion was brought back to normal only after special musical effects of 'cooling' generated by some special musical compositions sung in soft female voices.) However, deep mental absorption and emotional stimulation is commonly observed in the expert singers of the classical *rāgas* even today.

Because of its high impact on human psychology, music could be effectively used as a powerful medium for inculcation of moral character of the youths. Playing of the musical band of military not only inspires the marching soldiers with intrepid thoughts and zeal, it also alerts the listeners around and awakens the feelings of patriotism. Such is the impact of especially composed music! In the views of the great thinker of the modern era, Greek philosopher Aristotle • any kind of sentiments or emotions could be awakened by appropriate



combination of musical notes and tones. A former governor of Maharashtra, Mr. Prakashji was of the view that music should be made a compulsory subject in the schools. The effect of music would naturally develop stability in the mental concentration of the students and increase their alertness. These two qualities would substantially help cultivation of other virtues in the young minds.

Almost every God in the Hindu mythology is associated with some kind of music. The *pāñcajañya* (divine bugle) of Hrishikesh, *damaru* of Shiva, flute of *Krishna* and *vinā* of Saraswati, etc are well known in this list. This indicates the divine place of music as recognized in the ancient Indian philosophy that regards *Nāda* to be the fundamental source of creation of life and of everything that exists in the universe.

The vibrations of music are omnipresent in this world; music is the vital energy required for the existence of life in this world and it is the inspiring power of every activity of Nature. The sublime element of music is so powerful that its adept use could motivate our ordinary mortal lives towards the noble path of immortality. It could transform our despair into optimism and content and educe our depressed and vexed minds towards the high realms of divine bliss and peace.



## Emotional Impact of Music



ur ancient sages (*rishis*) had experienced music as *Raso Vai Sah* – that which is the source of eternal feeling and expression of emotions. The scientific investigations of the modern era have shown that music stimulates the secretion of specific hormones (also called *rasas*, in Sanskrit language) which affect the mental and emotional status. Classical music, if practised with devotional engrossment can also vibrate the subtle body and transform the inherent tendencies. The *swara yoga-sāadhanā* of music can also elevate the individual self like any higher level spiritual practice would do. The *sāadhanā* of music awakens the latent sound of the *Nāda* existing in the Self. Refined music can help the soul enjoy the state of ultimate bliss.

It is because of the eternal relation between *Śabda* and *Nāda* that the *Veda Mantras* are expressed as *chandas* (hymns); each *mantra* has specific patterns of permissible *tāla* , *laya* and *gāti* (pitch, tune, speed, tone, etc) that describe the valid and effective compositions for its chanting(*sāmagana*). As a particular radio station can be 'heard' (received) at a particular

frequency, a *mantra* can also be activated and its *sādhana* can lead to the attainment of *siddhi* only if its *japa* is performed in its originally prescribed *shastric* musical pattern(s).

The melody of the *swaras* of music is of paramount importance in awakening of devotional feelings. The *śāstras* state that – *Swareṇa Sallayeta Yogī* (The *yogis* attain trance by the *swara sādhana*). Saint Karlail used to say – “*Khudā* (God) follows music” -- that is, *thy* power can be attracted by the call of music. In the views of a noble laureate, poet Ravindra Nath Tagore --The world talks to me by means of the pictures. My soul gives response through the medium of music.

According to Prof. A. Hunt, music is the best medicine for a broken heart. The great scientists of the present era – Albert Einstein, felt broken from within when he saw the disastrous misuse of his discovery of atomic energy. He had taken the moral support of playing violin to gain mental peace in this state of gloom and despair during the last few years of his life.

The ancient Indian scholars of music had designed a variety of musical compositions and tunes (*rāgas*) for expressions of the different moods and emotional force of the human mind. A perfect combination of the musical composition, *melody*, *mood* and *time* generate remarkable effects on human psychology. For example, singing of *rāga Bhairavī* in the early hours (*Brāhm Muhurta*) before dawn awakens the *Bhakti rasa* that effectuates mental purification and refinement of mental health. This combination of *rāga Bhairavī*, *Bhakti rasa* and the *Brāhm Muhurta* inspires serene feelings of divine-devotion. The special *rāgas*, for the *Vīra rasa* when played during the war times, on the contrary, trigger exciting enthusiasm and courage among the soldiers.

Similar to the development in all faculties of science and arts, the field of music has also been explored for the positive as well as the negative effects in the modern world. Using specific scientific principles, certain kinds of musical instruments are devised that will produce special rhythmic flow of sound to hypnotize the enemy's soldiers during the war times. Development and propagation of noisy and erotic music has also extended the list of obnoxious effects of music in this century. Scientific research on the positive effects has, on the contrary, offered promising applications for the humans as well as the plants and animals.

It has been observed that even the extremely fragile animals like the rats become quiet by the melody of some musical instruments. Dr. George Kerawitz had done many such experiments where the music of piano had almost 'compelled' the rats to remain quiet and still. The syl fish is well known as a music-lover too. Until recently, the Portuguese fishermen often used to capture these fishes by attracting them through the music of piano. Dr. George Hatz, a specialist in forestry, has found several chimpanzees and gorillas of the Kangyo Forest of Africa to have a natural tendency of getting attracted towards music. He has trained and transformed many of these wild animals into what may be likened to obedient students with the help of music.

Dry and cruel hearts could also be inspired by soft humane sentiments with the help of intensive music. The experience (cited below) of Shri Vadivellu, a famous violinist of Travencore is a live example of this fact.

It happened in Travencore during the regime of the king Swatinirunalu. Shri Vadivellu was the royal musician in his kingdom. The glory of Vadivellu's music had spread around

the entire nation. Once he was so much engrossed in the *rasa* of music during his daily practice that he forgot to attend the royal meeting. The king felt insulted by this behavior and banished the dedicated musician from his country. Many of the king's advisors and royal officers requested him to excuse the musician. They advised - "Practising of pure music is like worshipping the God. Therefore, if Vadivellu had forgotten to attend the office due to his absorption in this devotion, he should not only be pardoned but also be recognized respectfully for his unperturbed love for music. This land would become lifeless without the shower of music...."

The excitement of ego makes one merciless and unreasonable. So was the case with the king Swatinirunalu. He ignored the justified arguments and advices of wise men around him and expelled Vadivellu from his state.

Poor Vadivellu crossed the borders on foot with his *velā* (violin) and a small bag containing a handful of essentials. During this painful journey whenever he felt tired, he played his violin and removed all the fatigue by the delight of its music. (Natural and pure music indeed gives fresh energy and liveliness. If we had realized this and had not flown in the erogenous music and songs of the films and the artificial high-pitch, fast-beat pop, jazz or disco music, we would have saved ourselves from the tiresome life-style of the modern days).

When Vadivellu was passing through a forest, several robbers attacked and snatched away all his belongings - including the violin. Vadivellu requested - "Oh! Brotheren you may take everything but please return my *velā* (violin). You do not know that music is my life. Why only mine, it is the vital energy for every human soul. Haven't you seen how laborers in the villages gather in the evening at one place after the day's

hard work and relax in the joy of their folk music? This music takes away all their pains and gives them invaluable joy in return. Kindly give back my musical instrument so that when there will be no other support to survive, I'll eliminate the thrust and fatigue of my soul by its music"

The hoodlums pitied and returned the violin to him. As a little child cheers after meeting his mother and sticks to her, similar was the condition of Vadivellu. He was overwhelmed....! He sat there, tightened the wires of his instrument and started playing it that very moment. Soon the sonorous tune of violin was flowing in the air of the forest. The dacoits also found this music rejuvenating.

Circumstances may make a man cruel and hostile but the humane sentiments of compassion and love remain alive in the interior of his heart. The vibrations of the *swaras* of violin also touched the emotional centers of these gangsters and opened up the blow of their otherwise 'buried' feelings of love and mercy. They sat quietly around the musician. Vadivellu was playing his violin with deep concentration. The bandits' hearts had flown in the lively currents of the melody. They had even forgotten about themselves; they realized this only after the music stopped. Their eyes were wet by the tears of remorse and by the thrill of unprecedented delight. This was a joint expression of their repentance (for the sinful actions of past) and their love with music and with their own souls. These sentiments were so far dormant and distant from them but were now awakened by the call of music.

The transformed bandits returned Vadivellu's belongings and safely reached him out of the forest. They also touched his feet and pledged for giving up robbery from that moment. When the news of this incident reached the king Swatinirunalu

through the villagers, he also realized the power of music, his ego melted and he ordered to bring back Vadivellu with due honor. Life in Travencore was once again cheered by the lively vibrations of pure music.

## **Influence upon Animals too!**

Many examples showing the influence of music on all living beings are available in the modern history too. One such incident is quite popular in this context: Once king Aqabara became so furious against the celebrity poet Magh that he ordered for crushing the poet's body beneath the feet of a mad elephant. All the members of the royal council saw injustice in this order because Magh had not committed any crime. But they were helpless; nobody had the courage to raise his voice against the royal order. They organized a secret meeting to find out a solution to save the life of the poet. Ultimately, it was decided to take the help of the royal musician – Tansen. The plan was kept secret.

Next day, as per the order, Magh was laid down in a tight position in an open ground surrounded by hundreds of people – the officers and the general public. A mad elephant was brought there at the scheduled time. As the giant animal started moving towards Magh, a rhythmic blow of *rāga drupada* played on *tablā*, also began to flow in the atmosphere. The effect of this music was so intense that the elephant got totally hypnotized and started swinging and dancing like a drunken man at the same spot instead of moving ahead.... All the viewers were also amazed watching this unprecedented scene under the influence of music. Until the music was on...., the elephant remained 'stuck' to that particular spot only. Fortunately the king Aqabara had also come to know about the 'unbelievable

but true' incident by this time and had realized that his hasty decision was wrong. Thus, the life of a great poet was saved by the great power of music.

Creation of music is based on eternal principles of the science of sound. Therefore its practice can never be futile. The materialistic, commercialized man of today appears to have lost the sight of natural peace and happiness in life. Vexed by the 'consumerised' attitude and worldly possessions, many people in the developed countries are now searching for internal peace and have seen the silver line in the treasure of music.

It should be noted that music is not only a field of knowledge and art, it is a stream of power as well. The brain and the mind might get satisfaction by many other external means as well. But, the only medium to contend the emotional core is – the soothing effect of music or spiritual illumination. In the ancient era when music was developed and practised as a part of the *sādhana* of *Nāda Brahm*, its power was indeed supernatural. It could control many activities of Nature – the *jaḍa* and *cetan* components. In spite of losing its original dignity and true identity, music is still effective in our lives in many respects. Music is more powerful in awakening the internal emotions than speech, literature or any kind of art is.

Creative effects of high quality music are often realized by its practice through the medium of *vāṇī* and the instruments. In spiritual experiments, the *sāma gāna* of *mantras* and the energy of *yajña* fulfill this task. Research on these aspects would provide brighter opportunities for divine illumination of human life through music and spirituality.





## Trends & Effects of So-called Modern Music

Since the recent past, music has gained significant attention in the industrially developed countries. The Yamaha Company of Japan has played major role in popularizing the Piano there. This company had initially arranged a series of piano concerts to train the children in the age group of 4 to 5 years. This programme has by now also attracted a large number of young and old people from the occidental nations like America, England, France and Germany. There are over 10000 schools of Yamaha spread all over the world where the little ones are taught some music before they start going to the schools.

The increasing interest for music in these countries is clearly reflected in the following data. A piano vendor in Italy had imported 2,300 pieces of this musical instrument from Japan in the year 1977; in 1980 this number was 5500. In a single year 1981, the number of pianos sold in the USA was equal to the total number of this instrument sold there during the past 128 years; this was a record sale for the major companies like Sinewy and Sons that used to manufacture and/or sell musical instruments.

Till the past four decades, the programmes of music were usually organized in Europe in the marry-making season of spring only. But, now such events keep taking place throughout the year. In 1982, about 250 popular concerts were organized in France alone; where each of these programmes was a successful hit for several consecutive weeks. Similar trend was observed in Switzerland, where, during the same year, over 6500 people had gathered in the international jazz festival to listen to the orchestra of one thousand jazz- musicians. Till date, organizing musical concerts in Western Europe is considered to be an extremely profitable business. The Milan company had published serial course material (lessons) on the art of playing guitar. Its first edition (published in 1982) itself was sold in huge number – 250000 copies! Beyond its expectations, the company had to bring out larger number of prints for the second edition.

Rising trend for music is also seen in Britain since past few decades. Thousands of recognized music centers of different levels are running there at present. In 1981, about 350000 students had appeared for a board exam for these schools. There are about 5000 such schools in France at present. The 675 music schools in West Germany had housed about 2400 teachers and 65000 students in early 1980s; over 50000 aspirants could not learn music there owing to the non availability of sufficient number of schools. In an annual selection programme for 'young talents of music' in Germany, about 10000 students had participated in the inter-state competitions of which about 100 were selected for the national team which presented its concerts within and outside that country.

In view of the craze for music in the younger generation of the occidental countries, Japan has developed a computerized technique by which even the beginners would be able to create

musical compositions with ease and learn the initial lessons (of the synchronized variations in notes) on their own. About four million products of the first design of this instrument, named VL-Tone, were sold in 1981 alone. Inspired by the effects of music the Russian scientists had, around the same time, carried out path-breaking research on applications of music in agriculture. Their experiments had shown increased productions of wheat crop in the fields where melodious music was played throughout the period of its growth; this crop had also shown higher resistance against hoarfrost.

A British chief surgeon, Don McKansey had once remarked that larger proportion of people, who died during the wars of this century, was of those who died because of noise than of those who were killed by the direct attacks of bombs. The destructive effects of Noise pollution and high or low frequency sounds are just opposite to the creative effects of sound present in the harmony of *swaras* and the sonorous music.

## **Need for Caution!**

Whenever we talk about the immense creative power of music, we must recall that this pertains mainly to the pure, classical and naturally evolved music. The kind of music now practiced and 'enjoyed' by the larger part of our society appears as just the opposite! The harmony of life, immersed in the rhythm and *swara* of divine music, might have been a reality in the Indian society several thousands years ago. Now it is mostly the filmy music with vulgar or erotic lyrics or the loud and exciting pop and disco beats that has become the medium of 'cheap' entertainment for the masses.

The excessive popularity of loud, fast beat pop music in the younger generation of the western countries is said to have

cultivated arrogance, erotomania and indiscipline among the young minds in general. Mr. Winlelu, an American musician had invented this music about four decades ago. Because of the 'pop - pop' sound of its rapid beats, it was given a name Winolelu-pop which later became known as pop music. The series of obscenity in music was further expanded by the development and use of the 'rock and roll' and the 'disco' in this class of music. Alvin Pressley was quite successful in popularizing these creations of his talents of music. This type of music triggers the youths to 'dance' by making ugly poses and oscillating different parts of the body in excitation.

The inventors of this so-called modern music must have studied the effects of rhythmic sound in detail to select the combinations which would rapidly stimulate the subconscious mind. The experts of deeper knowledge of music opine that the repeated high-pitched, 'ū..ū..ū...' like sound produced in the rock/pop/jazz music significantly stimulates sexual feelings in the singers and the audience. The use of loud drums and actions like - 'coquetting the hips and buttocks in the rhythm of the sound of the drums' - accelerates the sensuality and further adds to the insidious effects of the pop and disco type music.

Soft, melodious and precise (with respect to the completeness of the basic *swaras*) music supports the physical, mental and even the spiritual health. Loud, fast and exciting music, on the contrary, often proves to be pernicious. An incident that occurred in the Olympia music hall of Paris a few decades ago sets an evidential example of this fact. When a music concert commenced here - amid applause from all direction of this hall, packed with audience - with a soft and sonorous music, people were soon immersed in its melody.

Suddenly, as the tune of the music changed a new composition was being played, people felt somewhat uneasy.

The new exciting tune (of pop/jazz music) was being played there for the first time to test its effects. Its impact was so intense that most of the audience got up and started shouting in excitation; some of them broke the glasses of the surrounding windows, some women had even torn their cloths in that abnormal mood of 'musical' aggravation; some people attacked each other in that maddening excitation... The situation fell out of control and the organizers had to call up the police and arrange for the hospitalization of those injured. The conclusion of the experiment was that the new composition, which was a mixture of rock and pop music, creates terrible obnoxious effects on people's mind by invigorating animal instincts. As a consequence, the government banned that particular composition and musical tune.

It is amazing how a little deviation in the frequency, pitch, eats and the sequence of *swaras* sometimes makes so much difference in the quality and effects of music. There is enough scope in investigating creative compositions, suitable for the treatment of the ailing humane tendencies in today's world. Because of the intimate relationship of music with the consciousness, the emotional state of the singer (or the musician) also makes fine difference in the impact of his or her music.

### **Type of Music and Feelings of Singer also Matter:**

Many of the incidents associated with king Aqabara and the great musician Tansen illustrate the above fact. Once, when Aqabara was extremely pleased by Tansen's song, he asked in admiration - "where did you learn such a wonderful music?"

Tansen replied – “From my revered Guru Haridās, Sir” “Then why don't you take me to him sometime so that I could also have an opportunity of listening to his great music!” – was Aqabara's subsequent query.

Then Aqabara, Tansen and some of their friends went to visit the guru. Swami Haridās was a saint, whose life and music was fully devoted to the God. He used to sing devotional songs only. He sang an inspiring *bhajan* on Aqabara's request. The king enjoyed a unique inner bliss in that song. After paying due respect to the swami, he returned back with his group.

On another occasion, Aqabara asked Tansen to sing the same *bhajan* in a royal conference. Tansen did sing it with the same perfection of music but Aqabara could not feel the same depth as he had upon listening to swami Haridās. He expressed his curiosity – “why I could not find the same bliss in this song today?” Tansen humbly explained – His Highness, I sing for your pleasure but my guru sings in the devotion of the Almighty king of all the kings in the universe. That is what makes the great difference between his music and mine.

All streams of art are like double-edged swords. In one form they may be used for developing creative talents while the other form could encourage animal instincts and nurture evil tendencies. The effects of music are also of dual types. We must understand the dangers of the so called popular and upbeat, enchanting music on the psychology and the overall cultural development of the society and come forward to replace it by refined, constructive and soft, sonorous music of the light and classical category. Sacred, naturally melodious music is the desire of the soul. Its perfect practice could inspire divinity in all human beings.

## Music and Spirituality

**T**he first President of the Republic of India, Dr. Rajendra Prasad, was of the opinion that music and spirituality have strong relationship with each other. In this context, his views and those of several other great personalities may be summarized in the statement – “Classical music is a precious gift of the prehistoric era to the Indian Culture. The specialty of this musical heritage which is not found in the music originated elsewhere could be attributed to the high regards our ancestors had for music.” The Indian classical music had not emerged as a medium for momentary entertainment or as a consequence of unfulfilled desires. It had, on the contrary, originated from the intrinsic feelings of unification of the individual self with the cosmic vibrations of *Nāda* like the blissful divine experience of a spiritual *sādhana* that enables awakening of the soul and linking of the enlightened individual self with the Omnipresent Supreme Self (*Para Brahṁ*).

Our forefathers had realized the implicit spiritual impact of natural music in the early phase of the advent of human civilization and culture. They had developed this branch of knowledge in accordance with its divine character. The

classical music designed and practiced by them was aimed at inducing a feeling of spiritual escalation in every entity of the Nature. By way of their teachings in the *śāstras* (ancient Indian texts), they had also made arrangements so that this music would become an integral part of people's life. There is possibly no culture other than the Indian culture that remains enriched by the classical music even after the lapse of thousands of years.

Greek historian and diplomat Megasthenes had found the Indian race to be fonder of music as compared to the other races. The following quote (translated version) of Megasthenes has been cited by Aryan in his book entitled 'Indica' that was written about 150 B. C. – "Indian social and religious system is so structured that music continues to occupy an important place in the public and personal life here" No ritual of the *śoḍaśa samskāras* is performed without some devotional and traditional music. The farmers working in the fields, the women cleaning or grinding the grains, or the people performing a religious worship in a community, always collectively sing some special songs suitable for the occasion. Music is also an integral part of all festivals. Music seems to be a means for offering internal peace and mental and physical energy and also maintaining the dynamism of life in the Indian society.

The Indian classical music had made peerless contribution in the areas of spirituality and culture. A common man in India, even if illiterate, would not be totally blank about the importance of asceticism and spirituality. Mr. Cousins had expressed similar thoughts in one of his articles published in 'The Harijan' magazine.

Mr. Cousins has mentioned that once during his visit to a village in India, he had had a long and thorough discussion on philosophy with a villager there. The depth of knowledge of



this villager impressed him. While leaving the village he asked this person to write his address on a piece of paper, to his surprise, that man did not know how to write! The author (Mr. Cousins) found it remarkable and wrote - "In spite of being illiterate, a common man in this country can possess such a scholarly knowledge! It must be the effect of the tradition of teaching religious and philosophical points by means of songs and musically recited stories extracted from the ancient scriptures." This way of teaching directly 'inscribes' the essence of knowledge in the hearts of the pure, simple and faithful people"

The verses of saintly poets Tulsidas, Kabir and Meerabai are known by heart to billions of illiterate people in India even today. How is that possible? It is also notable that these great poets had never gone to any school or acquired the knowledge of reading and writing in any language. Their poems had emerged as songs, expressing the devotion of their souls. Since the past few centuries, common people have also been learning the teachings of these saints by way of musical recitation of their poems. These observations illustrate that music indeed lies at the core of the Indian culture for inner refinement of the masses.

In the ancient times, the experts of music were also regarded as *Munis* (scholars and sages). Knowledge of *shastric* music was necessary for learning the *Vedas*. The original Indian music was essentially derived as an effective mode of collective teaching and *sāadhanās* of spiritual elevation. Mr. Cousins further writes that - "I do not think we have given music as much importance in our modern lives as we should have. The Indian music, as practiced today, has by and large, shifted far away from its original serenity. Classical music has become a sort of fashionable hobby for the elite societies in the big cities. It has distanced itself from the common people. The folk music is kept away from the mainstream music in general"

“Music by definition is the power that can illuminate the dark corners of our lives. If the music of Tulsi, Kabir, Meera and Raidas could enlighten the downtrodden, illiterate and dull minds then why shouldn't today's musicians also be able to do that? In this era of freedom and democracy, our great musicians must come forward to connect themselves with the common people as their founder teachers had been doing centuries ago, they must revive the healthy traditions that were lost in the attraction of the artificial urban life – cultivated by the British influence. The government and the public should also offer the same honor and facilities to these masters that they used to receive during the golden days of Indian history. The flow of music in the Ganges of a natural lifestyle will purify it (music) and bring it closer to its original form”

The author also warns that – “Linkage of music with the public life should not be mistaken by diluting its perfection or maligning it with the dirty tastes of those who had never had an opportunity to enjoy the pure, good music. It should be noted that our (*shastriya*) music was originally developed in natural accordance with the noble sentiments of humanity. The *rāgas* have been given principal importance in our classical music. Performing this music would not be possible without perfecting the practice of different *rāgas*. The major objective behind structuring the *rāgas* was to create a 'specific' flow of sonic energy in the atmosphere and induce specific thought waves and emotional enlightenment in the human mind and heart by a specific *rāga*. This is how our music was so effectively used as a medium of psychological training and cure for a number of physical and mental ailments. We can never achieve similar effects by deforming or diverting it by making arbitrary alterations on the original nature of our classical music.”

All of those who realize the creative power of music must come forward to preserve its dignity as a branch of *sādhana* and not just a medium of entertainment. At the gross level, we should try introducing music as an integral part of our education system. This does not mean that it should be made a subject in the school and university curriculum that the students have to pass. Rather, it should be taught and practiced to awaken the social or collective consciousness of our children and the youths.

Our *rishis* had depicted even the images of deities in human form as holding some musical components. The representation of Shiva without *damarū* or Krishna without *muralī* (flute) would appear as incomplete. When the identity of God in these images is 'missing' without the presence of music, how can the human life be thought of as being accomplished without a close relationship with music? The idol of Goddess Saraswati holding a book in one hand and a *vīṇā* in the other symbolizes that knowledge is dry or imperfect without the nectar of the deeper emotions awakened by divine music. Our present education system has not bothered to nurture this balance. That is perhaps the reason why we do not see any harmony between the heart (emotions) and the mind (thoughts) of the majority of people today. The renowned Greek philosopher Plato had also emphasized the need of linking education with music. Our savants in the field of classical music and the academicians must discuss this issue seriously in order to evolve its effective implementation.

The *Śāstras* describe the ancient Indian classical music to have originated from the power of God Shiva. Aeons have passed through the road of time since then; many civilizations, many emperors, many ups and downs, many calamities and

attacks have been witnessed by the Indian history. But the basis of the Indian culture and its classical music could not be uprooted in the limitless flow of tumultuous events. The secret of its timeless existence lies in the strong foundation of spirituality that expands far beyond the domains of dry philosophy or doctrines. It encompasses the *Gītā* of lord Krishna and the *bhajans* and the ever-lively emotions of the true devotees, and embodies every impulse pertaining to pure love, compassion and generosity. The spiritual basis of our classical music is so strong that if we put dedicated efforts to resurrect its originality, this music would indeed become a boon of god Shiva in our lives. It would then enable us in making our lives so sacred and useful for the happy survival of humanity, as is the holy water of the Ganges.

A story in the *Purāṇas* states – Once upon a time, a fierce battle took place between the *suras* (divine powers) and the *asuras* (devil's forces). This time, the *suras* were on the verge of defeat. They tried to hide inside the ocean, the earth, the limitless sky, but were caught by the *asuras* everywhere. The troubled *suras* then went to god Brahma and requested him to suggest a safe shelter. Lord Brahma replied – “Oh, divine powers! Go and immerse into the consciousness of the *swaras* (natural musical notes) which are omnipresent and universal” The *suras* then discussed with each other and went to the Goddess Saraswati who could guide them to such a shelter. She immersed them deep in the *swaras* of her eternal music. Since that time, music also became a divine power that could be worshiped by everybody. The *Purāṇas* further teach that - the devotees who 'immerse' themselves in the nectar of music with deep faith would be blessed by divine protection. The *sādhakas* of pure music – an expression of *Nāda Brahmā*, and the disciples of the *swara-sāadhanā* also attain the highest realm of spiritual elevation.

## Music – Ecstasy and Compassion

**P**ossession of property, might, beauty, intelligence and creative talents are most commonly regarded as the signs of dignity, success and destiny in the personal and social life at present. The lesser is the presence of these natural or acquired 'fortunes' in one's life, the lower is the status of his 'development' on the scale of common considerations. Most of these 'abilities' appear to be natural bequests that may not be 'earned' or 'acquired' by worldly efforts despite earnest desire and assiduity.

Only few people realize that what stands superior to the above measures is the extent of unalloyed happiness in one's life. A blissful mind is indeed the key to the real success and internal peace that is the ultimate goal of life. The possibility of attaining these lies entirely in one's own hands. These can be achieved by cultivating proper attitude and maintaining emotional balance – no external means or 'inherited fortunes' are required here. Emotional activities, educed by afflatus of the soul constitute blissful nature. One should learn to strive for the best in accordance with the circumstances and achievements of

his personal life and to compare own status with those who are less fortunate or less successful. This perspective helps one realize that he has got much more of fortunes, talents and potentials that many others have been deprived of. If we choose to confine our comparison to that with the richer, mightier, brighter people, we are bound to develop inferiority complex and lose our mental peace and happiness. Nobody could ever attain absolute success in the materialistic world. It is quite likely that what one particular person has acquired in life is what many others would aspire for, still he is found to be dissatisfied with his achievements. This remains an unending cycle unless one learns to accept that it is one's own attitude that counts the most in this respect. In the root of one's attitude (outlook) or thoughts lie his/her sentiments and emotions, and much deeper in the root of these lies one intrinsic nature, one's inner self. One's intrinsic nature is a latent quality that cannot be seen or quantified like the so-called measures of success in worldly life.

The juice or the essence of a fruit lies in its interior and not in its external beauty. Flowers are not sweet on their own. Whatever sweetness they gain is mostly because of the bees that taste their juice. (The saliva of a bee triggers and contributes to the chemical process makes this juice in many flowers sweet like the honey). Similarly, happiness does not line in material things or situations. If one's emotions are dignified and well set in-tune with the natural purity of the soul, they will be able to extract happiness from wherever it lies in the world; every circumstance, every condition of life would then be delightful.

The beauty of Nature pervaded everywhere is a wonderful source of zest and cheerfulness. If we observe it through our inner eyes, through our heart then we would certainly find an

ocean of joy around us. The wild life, the flowers, the trees and the tiny birds in the nests on these trees, the streams of water flowing from the tops of the green mountains – everything gives immense joy to the sages, who live in the forests. The children too, because of their heartiest closeness with the Nature, find it extremely attractive. They are literally pulled by the natural beauty around them.

Music is recognized as the most effective source of delight for the people of all age groups and from all walks of life. Music is usually generated externally by means of some instrument or one's voice. However, one can also generate it internally by vibrations of the cheerful swinging of emotions. It is the blow of the currents of the 'electrified' sentiments of the singer or the musician that vibrates the emotions of the audience too. That is why it is said that a complete music consists of singing, playing of a musical instrument and the *abhinaya*. One's mood could be rejuvenated by music if one practises it or attends its melodious performances. Creation of internal music and attainment of immense joy from it does not require any external means. Each one of us could try experiencing it, all the time, in all conditions.

Music programmes (live or recorded) are especially arranged on the occasions of festivity and joy because it is most cost-effective in terms of its contribution in up-keeping the very purpose of the celebration. Awakening of internal music of emotions depends on one's motivation, sentimental depth, piety of character and inner strength. Listening or practising melodious music offers instant happiness and helps gradual cultivation of the above qualities too.

As milk may be spoiled by mixing sour substances, nectar could be made harmful by blending it with poison, a tasty juice could be converted into a bitter one by putting some rotten

substance, similarly music could also be maligned by erotic perversion. Effect of such adulterated music is intense like intoxication and it awakens animal instincts in a very short time. After the momentary 'delight' triggered by this music is over, one finds oneself in a shameful state resembling what a drunken man would face when his excitation and influence of intoxication is over and he finds himself fallen down in a dirty drain.

Naturally melodious and refined music is a source of vigor and vivacity. Special compositions of music under different *rāgas* are useful in the therapies against many psychosomatic and neurological disorders. Many insane, hysteric, impatient and cranky persons have been cured by music even in the present (twentieth) century that hardly contributed to uplifting the status of music vis-à-vis its ancient glory.

Music in its original form is a reflection of divine *swaras*. It indwells in the *jaḍa* and the *cetan* component of Nature as a manifestation of the *Nāda Brahm*. Pure music is therefore a source for generating compassion, beatitude and inner bliss. It can also be a means for controlling the mind and enlightening the emotional core. Every aspirant of realizing the eternal delight of the soul should endeavor integrating the activities and aims of his life with the divine beauty and perfection of music.





## The Universal Joy of Music

**M**usic consists of a variety of ups and downs and tuning and fusing of different streams of sound waves that trigger specific flow of *swaras* (musical notes). The rhythm of musical composition regulates its currents to generate specific effects on the *jaḍa* (inanimate) and *cetan* (animate) forms of the world.

Like the Doppler effect of the superimposition of coherent sound waves, the physical impact of certain compositions of the *sapta swaras* (the octave) of music could be so powerful that it might even quiver a concrete building or stir the waters in a pond or sea. The effects of music on the *chetan* (consciousness faculties) are more wonderful. Be that a tree, plant, animal or a human being, they can never remain untouched by the flow of *swaras* present in the Nature. No living entity could be indifferent to the marvelous melodies of music.

Music is an expression of the joy of Nature and has an intimate relationship with every vibration of Nature. Functions of the human body and mind, being most prominent among the

ever-active centers of the expression of *chetan*, are naturally the most sensitive receptors of the force of music.

“Music gives relief from insomnia” – this effect seems to be well-known and has been in practice since the time of yore in the form of the tradition of 'singing of a lullaby by a mother to make her child sleep well' With the advancement of technology, recorded lullaby and audiocassettes of especially composed music are also found in common use. Adults too listen to music to relax their body and mind by 'bathing' the consciousness-faculties in the soothing shower of the sonorous *swaras*.

Dr. Atkinson's established method, in which he used to advise the patients of insomnia to repeat the counting and reverse counting of numbers – has become less attractive as compared to the music-based treatments because the latter also offers joy along with sleep. One Dr. Macmullar of Chicago is also known for his music-based treatment of mental disorders. In the spiritual healing methods, the mental recitation of *Omkāra* is advised for total relaxation of the nerves – leading to deep sleep. The continuous chanting of *Oam* itself generates a unique flow of *Nāda* (music, in its eternal form). Therefore, this practice also falls under the music-based therapies.

Change of weather or excess of chill or heat often cause varieties of 'seasonal' diseases. Cough and common cold, body pain, pneumonia etc are common complaints of the winter season whereas sunstroke, headache, burning sensation, insomnia, loss of appetite etc are frequent in summer. Some scientists have successfully used special preventive effects of the sound waves against such complaints and have found the results more encouraging or equivalent as compared to those of the relevant medicines in

general. Specific kinds of musical compositions are now in use as a background support for the initial training of meditation and some *yoga* exercises as well.

If we pay little attention we will find that every species of birds and animals around us have 'musical' voice; be that the tinkling of the beetles, singing of a nightingale or the grumbling of a frog or roaring of a lion – each has its own natural rhythm.

Experiments on several animals have shown that they can be trained within a period of 30 to 35 days in listening to music; they get so engrossed that they would even forget about their food while listening to their favorite musical tune. Gorillas, chimpanzees and other apes are used to some habits that are also common among human beings; for instance, they can be cheered up by good music. It has been observed that the melody of flute and violin are the most favorite music of these animals. The animals like hippopotamus and rhinoceros are known for their deadly sleep. Only the sharp pinch of hunger can break their lethargy and sleep. Interestingly, music has also been successful in doing so. It is observed that when certain type of music is played near them they get up and instead of moving elsewhere, they sit quietly and listen to the instrumental musicals composition until its play is over. It is observed that they find the music of *Saroda* so amusing that they start swinging their heads in the rhythm; some unusual expressions are noticed on their faces on such occasions.

Many a times, the elephants, horses, bears, monkeys, dogs and foxes are seen dancing in tune with the instrumental music without any prior training of this sort. The wild cats seem to like the music of pipe bands more to that of other instruments. Surprisingly, even crocodiles are found to be swaying with the

flow of the music of their liking. In view of the similarities of the rabbits and monkeys with that of the human body in some respects, Dr. George Fur Wilson had initiated systematic long-term experiments to investigate the effects of music on these animals.

If even the poisonous creatures like the snakes and scorpions and the tiniest varieties of the birds could be sensitive to music then what about the potential and influence of music on the emotionally evolved species like the human beings?

The effects of music on human body and mind are universal. As light and heat affect all the animate and the inanimate forms, so does music, because music is a rhythmic flow of the energy of sound generated by specific 'compositions' of vibrations. As this energy latently contains the (electromagnetic) energy of heat and light, so does music. Considering this 'physical property' of music, its effects on the human body can also be analyzed in terms of the effects of constituent physical energies.

The effects of music do not vary with respect to the cast, creed, religion, nationality or social status. There may be different opinions about the existence of God and the philosophies of life; but, there could be no place for controversies or counter thoughts when it comes to accepting the enchanting, almost hypnotizing influence of music. Eternal love of humans with music indicates that it is a natural phenomenon.

The Upanishads state –

*Brahm Praṇava Saṁdhānṁ Nādo Jyotirbhayaḥ Śivāḥ |*

*Swayamāvirbha Vedatmā Medhāpāyēaṣumāniva | |*

*Siddhāsane Sthito Yogī Mudrām Saṁdhāma Vaiṣṇavīm |*

*Śṛṇuyāddakṣiṇe Karṇe Nādabhannargataṁ Sadā | |*

*Abhyasyamāno Nādoayaṁ Vāhyamābraṇute Dhwanim |*

*Pakṣādwiparkṣākhalam Jitwā Turyapadam Vrajeta | |*

– Nāḍabindupniṣada 30-31 | 32

**Meaning:** When we meditate upon the unity of the soul and the *Brahm*, the glow of the *Paramātmā* (the Supreme Soul) is realized as the eternal divine music – *Nāda*. The *yogi* should sit in *siddhāsan* with a *vaiṣṇavī mudrā* and attempt listening to the *anāhata nāda* internally. After sustained and long practice, the external sound disappears and the *sādhaka* attains the state of *turya* (ultimate inner peace and stability).

The above statement signifies the eternal linkage between music and the omnipresent *consciousness force*. A thorough *sādhanā* of pure music can certainly help awaken divine virtues and potentials in the human self.

Several examples in support of the existence of life after biological death are cited by Mr. Norman Vincent Peale in his book 'Stay Alive All Your Life'. One such example narrates the experience of a nurse, who had witnessed the death of many patients. According to her, one who dies peacefully experiences the vision of supernatural light or scenes and perception of divine music during the last moments. In some reports, many people, just before their death are said to have described that they are watching an amazing spark and listening to an exceptionally melodious music.

A natural question arises here – 'If music has such an intimate relationship with the eternal source of human life and with its ultimate end then why an accomplished musician or singer, dancer or a staunch music-lover does not always experience at least a glimpse of the divine bliss of uniting his or her consciousness with the Supreme Consciousness?' In fact, this is a subject matter of the depth and spiritual level of the

inner self. One cannot have such experiences without being immersed in the ocean of music through the deepest core of the inner self – such absorption is possible only if one's mind is pure (free of ego, avarice and attachments) and if the music is natural and a true manifestation of *Nāda*. Nevertheless, good classical music, if played, sung or heard with emotional concentration, does offer divinely soothing effects on the body and the mind. It also increases the attraction of the individual self towards the origin of his consciousness.

It is often observed that cruel, dry hearted, selfish and egotist persons do not have great liking for melodious music. Strong affection with natural creative arts like music indicates higher levels of one's compassion and emotional sensitivity and is regarded as the first step towards developing spiritual fitness.

In the routines of daily life, we usually find that our body gets tired in the evening; although it is not tired in the morning – just after leaving bed, but it feels somewhat drowsy. This is because at both these times the harmonious level of *protoplasm* – the building material of the living bodies – is perturbed. If one does a heavy physical work during these time periods, one often feels the pressure of weakness that further increases his mental fatigue and vexation, which are often reflected in his anger or irritation without any real cause. If one eats or drinks something warm during these time periods, the molecules of *protoplasm* are excited momentarily. But this 'energy wave' of stimulation is like a sudden stormy breeze that shakes the trees upside down for a short while and leaves behind a scary solitude. Illusions and instabilities of the mind, the tendency of making blunders during the daytime and frequent experience of nightmares are usually found in the people who consume

intoxicating and stimulating substances. These defects are results of such a stormy excitation in the activity and level of *protoplasm*. For this reason, intoxication during the evening and the morning hours is said to be extremely dangerous for mental and physical health.

Consistent flow of the sonic waves emanated from a soft and slow music generates a massaging of the 'particles' of the *protoplasm* and rejuvenates them in a manner similar to what the joy of meeting a beloved one does to our heart and mind. Therefore, a melodious music, practiced or heard during early morning gives energy and strength in the body, boosts fresh activities in the neurons and induces soothing sensation in the mind, heart and emotions. Soft and slow music, during the evening time, similarly offers pleasant relaxation and peace. The practice of singing prayers and devotional songs and inspiring music or listening to such musical performances every morning and evening is indeed an exercise for up-keeping physical alacrity and mental creativity.

Some botanical experiments of Dr. Singh and Ms. Stella of the Anna University had shown noticeable effects of music on a variety of plants. In these experiments, a huge garden was divided into two equal parts such that the availability of water and sunlight and the type of soil etc were exactly the same in both the parts. Their research team had repeatedly conducted several experiments in which, violin was played an expert for few hours every day for the plants and trees only in one particular of the garden during the season of growth of their crop. The remaining half part of the garden was kept deprived of any musical effect.

The study showed that the plants and trees grown in sonorous musical ambience were straight, much taller,

healthier and more productive as compared to their counterparts without such treatment. The flowers of such musically treated trees and plants also lived longer and gave better seeds at higher rates. Similar results are found in some experiments on the crops of rice sugarcane and sweet potato in Canada. The researchers comment that *protoplasm* in the trees rests in an unstable state like a liquid filled in a pit. The waves of music vibrate and activate it like a snake swinging to the tune of a *bīna*. *Protoplasm* in the human body also flows smoothly with the currents of music. Dr. Arthur Locker of Wisconsin, who is known for his detailed research on the power of music, opines that – as the plants are protected from germs by special musical treatments, so could be the human body.

Music generates gross as well as sublime effects on humans. Increase in the body-energy and mental alertness and cheerfulness after performing or attending a programme of musical concert or classical dance are some of the well-known 'physical' effects apart from the biological effects discussed above. Investigations in some laboratories show potential of controlled rhythmic sound waves of music as alternative medication and even as supportive in surgical operations.

*Swara Sāadhanā* of classical music is like a *prāṇāyāma* that strengthens the lungs and enriches the reservoir of vital energy in the body. Healthy digestive system, broad and stout chest, strong bones, deep sleep are some of the other common gross effects of this *sāadhanā*.

Tremendous potential of music in engrossing the conscious and subconscious mind has also attracted research in some developed countries. This research is focused at finding the methods of using music as an effective means for hypnotizing and giving psychological treatment.



The deeper effects of divine classical music generated from the Vedic compositions are said to manifest at the emotional level in the form of – expansion in the sentiments of pure love, compassion, generosity, cooperation, tolerance, and altruist service. A person, blessed by these inspirations of music would not be deprived of friendly support, healthy cooperation, serene love and joy in the external world too.



# Healing Potentials of Music

**I**t is only the activity of the tongue, lips, palate and the tiny components of the vocal cord that produces voice as we all experience in our routine conversation. However, the same voice needs to be stretched and varied rhythmically when used for singing. The force applied for the stretching and rising of voice also strengthens some organs including the intestines, liver, stomach, heart, lungs, throat and palate by inducing an extra flow of vital energy through them.

The above exercise, especially in the practice of the classical *rāgas* also activates the flow of some kind of bio (neuronal) electricity from the navel center in the upward direction. This current oscillates between the navel and the *Brahmrandhras* and not only makes possible the generation of different *swaras* but also quivers the extrasensory energy centers – the *śaṭ cakras*, *uptyikās* and the three *granthis* on its way. Thus, singing these *rāgas* serves the dual purpose of inspiring inner emotions and of massaging the internal and subtle components of the body, which, if activated, could be used for awakening latent occult energy centers. The practice of

classical vocal music is therefore also referred as a *yoga* exercise.

There are three *gatis* (speeds) that are fundamental in classical singing; these are classified as – *Druta*, *Vilambita* and *Madhayama*. The *druta* corresponds to singing at a rhythmic but a fast pace. The tongue, throat, chest and heart are subjected to good exercise in its practice. The *vilambita* type involves stretching of the *swaras*. Singing in this mode opens the windpipe and strengthens the vocal cord. The *madhyama gati* implies singing at one's natural frequency. This generates soft and slow vibrations in the neurons, nerves, arteries and the heart.

Playing musical instruments also involves rhythmic and synchronous movements of different components of the body. The head, neck, shoulders, chest, lungs and stomach are most benefited by the practice of soft music on instruments. Practicing instruments like the flute and *śahanāī* is equivalent to classical singing with respect to the positive effects of harmonized breathing and *prāṇāyāma* on the physical and mental health.

The human body is described as made up of five basic elements. The theories of *Āyurveda* indicate that the tendencies of these elements vary according to the level of *vāta*, *pitta* and *kapha*. The principles of *Yunānī* (Greek) medicine rely on controlling the diseased state of the body by balancing the variation of three natural tendencies termed in their literature as *āvi*, *vādī* and *ravādī*. The biochemical theories define twelve different salts (ionic compounds) as fundamental in conducting the healthy functions of the basic components of the body. Homeopathy regards the level of some poisonous substances inside the body to be of basic importance. The Greek and

Tibetan therapies, similar to the Ayurvedic methods of treatment, are based on systematic use of fresh herbs, minerals and plants that sprout from the ground. The methods of Chromopathy (*surya cikitsā*) are derived from the consideration that haphazard variation and imbalance in the absorbance of the seven colors (of the sunlight) in the body are responsible for the occurrence of disorders in the healthy system and diseases.

According to the *swara śāstra*, the seven subtle *nādas* immanent in the human body and mind govern all physical, biological and mental activities. The use of music as a therapy is based on the principles of this *śāstra*. This method incorporates identification of appropriate compositions of the basic *swaras* whose practice (through vocal or instrumental support) would be most suitable for controlling a particular physiological or psychosomatic disorder. If the vocal and instrumental music, being practiced or listened regularly, is perfect in terms of the classical (*shastric*) principles then it can certainly be used as an effective mode of treatment and maintenance of total health. Systematic research in this regard since past few decades has shown a path-breaking direction to complementary medicine.

Dr. Harls Ashley, an American expert of the music-based therapy, has worked hard to systematize the modes of its applications. He has successfully used this therapy for about 20 years to provide supportive healing to patients of different diseases. He estimates that the number of patients (of those diseases) fully cured by this therapy is larger than that by allopathy alone. The music-based mode of treatment is supposed to be the best for tackling the disorders of the nervous system. Dr. Johan Schumilyn has also conducted many experiments in the Gottingtun City of Germany using music as a therapy. His conclusions imply that not only the humans but

even the animals could also be relieved from many painful diseases by making proper use of musical treatments.

Ample examples of the use of music as a therapy exist in the history of India and other countries. The holy Bible also makes mention of the therapeutic applications of music; it describes of a musician named David Harp who had cured the otherwise incurable disease of king Saal with the help of his excellent art of playing musical instruments. According to Homer, a dreaded disease of Ulysses was also cured by the effect of music. The ancient physicians of Egypt used to chant some hymns while treating their patients with medicines. Many tribal communities in Africa are well known for their expertise in curing some diseases by making special musical sounds through the mouth.

The ancient Egyptian treatise entitled '*Medicale Pepiri*' cites the use of music for increasing the reproductive capabilities of women and of some domestic animals. In one of his books, a musician called Timthias has mentioned a historical incident – “One day when Alexander the Great became unconscious and no remedy was working on him then a lyre was played near him to successfully bring him back to the normal state” The history of German music is also quite old. The inscription on one of its old musical instruments states – “When all medicines and other remedies are found to be ineffective in removing the pains and agonies, music alone provides good support and solution”

There is a separate wing for the teaching of music-based therapies in the Karl M. Bon Waiver Music College of (East) Germany. Music has been used there in curing a variety of diseases ranging from high fever to several cardiac ailments. Music is also found useful by the doctors there in giving painless treatments in dentistry. Some expert gynecologists in

Germany have conducted successful experiments in offering musical effects for relief from labor pains at the time of childbirth. Many maternity homes in Germany have arrangements to play the records of special musical tunes composed by Mozart.

The *mudras* (poses) of Indian classical dances, performed along with suitable *rāgas* of music multiply the positive effects of the dance when the feet of the dancer(s) vibrate in tune with the tinkling of the *ghunghrū* (cluster of tiny bells worn around the ankles). The dancer(s) as well as the viewers feel as though they are floating in a heavenly stream of joy. All the tensions and worries of the mind are removed in this process and the state of the mind gets clear, stable and calm. The movements of the limbs and other parts of the gross body due to dancing, and the vibrations of its subtle components caused by the sound of music create mutually complementary effect.

As such the art of dancing has its own independent schools, but it cannot remain aloof from music. Singing and instrumental music, although two different branches of the music, are mutually complementary like the grammar and literature of any language. Dancing is the third component in this series. The combination of these three generates very specific *prāṇāyāma* – an exercise of the vital energy vibrations by which the mental and physical health, beauty and charm could be maintained at an elevated level.

The psychological impact of music has always been more prominent as compared to the physical or physiological. The use of special-effect music to stimulate the valor of the soldiers during wartime has been in existence since the time of yore. The great battle of Mahabharat had begun with the sound of the *Pāñcajanya Śamkha* of Lord Krishna. Historical descriptions

show that instruments like bugles, drums, lyres, timbrels, cymbals, etc used to be essential components of the army bands until the medieval centuries. The later centuries had gone several steps ahead in this direction. The bands of the armies now consist of high-tech instruments for a variety of sonic effects. These include – the special musical effects that would trigger even the cowards and the scared ones with an adventurous zeal of 'do or die'; or, that could do just the opposite by creating hypnotizing effects of depression and dullness in the minds of the opponents.

In all ages, all over the world, music has been used in one form or the other as an effective remedy for fear, tension and mental weakness. The modern times have witnessed a new trend in psychological problems and their treatments. The sonic flow of music is now given significant importance in the treatment of psychological and psychiatric disorders. Most of the mental hospitals in the western countries are well equipped with the facilities to play special musical tunes. The cranky or insane patients easily get emotionally absorbed in the flow of music. This helps reduce their mental excitation and offers soothing effects on their nervous system.

Nature has gifted us a wonderful source of the power of sonic vibrations in the form of music. It is up to us how we, the intelligent beings, would like to activate and use the hidden supernatural healing powers of music.



## Paramount Importance of Nāda Brahm̐

**A**s discussed earlier, the *sāadhanās* of *Nāda Brahm̐* and *Śabda Brahm̐* are crucial in the domain of spirituality. These *sāadhanās* are given maximum importance in the experiments of illumination of the inner self. The power of *Śabda* is regarded as the source of sublime energy for activation of consciousness. A little disorder in the currents of this vial source shakes one's personality. Mental disturbance, unusual excitation, lethargy, and depression are the immediate signs of any perturbation in the level of this energy.

The seven basic *swaras* (notes of music) viz. *Sā, Re, Ga, Ma, Pa, Dha, Ni* are the manifestations of the seven subtle *Nādas* of *Śabda* existing in a human being. *Sāadhanā* of *swara yoga* therefore helps maintenance of the energy of *Śabda* in the body and control of the disorders of mental and physical health that were caused by suppression of this subtle energy. Scholars of *swara śāstra* believe that by the *sāadhanā* of *swara yoga* one can attain not only the *sundaram̐* (eternal element of beauty and joy) but also the *satyam̐* (absolute truth) and *śivam̐* (universal auspiciousness of divinity) forms of the *Brahm̐*.



A Japanese musician named Shinichi Suzuki opined that music generates humane sentiments, discipline, tolerance and emotional softness. According to a French zoologist, Dr. Vastive Andre, music deeply touches the brain and titillates the nervous system of every living being. Every creature gets enormous peace and joy from the music suitable to its natural instinct and mental state. Large numbers of examples are available in the human history, which illustrate the amazing power of music. For instance, when Mr. Ralf Lawrence Hoy of USA and his wife used to play music with deep emotions, one patient of sever rheumatism and stiff body used to get instant relief from her pain. This had inspired the Hoys to establish the now renowned organization called R-for-R for the noble cause of offering remedy by means of music. Dr. S.J. Laden of the same country has found, after a rigorous examination of those who regularly sing, play or listen to melodious music, that the propensity of ailments among such people is much lesser than that in the others.

Dr. Edward Podolsky, of USA was a doctor and musician of distinct qualities. He had found that the rate of blood infusion increases and new energy is induced in the veins and arteries by the effect of music. He argues that music is an excellent exercise for physical and mental fitness. Children, youth, and the old – all men and women can benefit from music in a manner most suitable to their nature. Dr. Derrickson of the same country and Dr. Johns of Germany have also expressed similar views on the effects of music on holistic health.

Podolsky's experiments on the kidney stones of some patients in New York had shown interesting results on the effects of music. It was found that when the music of certain kind was played near a patient for a fixed duration of time,

some particles of the stone used to break and come out along with his urine. The pathological testing every day showed almost the same amount of these particles present per c.c. in the urine samples except on a particular day when music was played for a shorter duration for time; it was noted that the amount of stone present in the urine was also proportionately less in that day's sample. Moreover, one day when no music was played, no presence of stone was found in the urine-test on that particular day. Entire stone was finally removed after regular treatment by playing the same music every day for several consecutive days.

Investigations of Dr. Meed of England have shown that the rhythmic flow of sound in music creates specific stimulation in the nervous system. The vibrations generated by certain musical tunes are especially effective in up-keeping the digestive system too. Dr. D'Alene Jones of the Science and Technology Institute, University of Wales had received a governmental grant of 31 thousands pounds for conducting thorough research on the therapeutic applications of music. Under this project, Dr. Jones had investigated different effects of sound-waves on the human body. He opined that even humming a sonorous tune has good effects on the body and the mind. As per his recommendation, singing in soft voice or humming in a musical tune during the early hours of morning and evening can serve as a preventive measure against the attack of a number of diseases. This expert-advice also explains why the *japa* of *soaham* and the singing of *bhajans* during early morning and evening are given so much importance in the Indian *Śāstras*.

In the views of Dr. P. V Mathur of the Central Electro Chemical Research Institute, Karai-Kudi, India, the

'construction' of the seven fundamental notes (*sapta swaras*) of the Indian system of music is not arbitrary; rather, it is based on rigorous mathematical formulae. He had cited the role of the twenty-two *śrutis* in this context. He had found that the presence of at least fourteen *śrutis* is desirable for a perfect composition of a *rāga*. The sequence of the *sapta swaras* – known as *saragama*, is itself rhythmic and based on definite principles of the flow of sound. The *śrutis* mainly contribute in generating 'emotional waves' in different combinations of *swaras*. Most of the Indian classical *rāgas* that are popularly practised these days are found to make use of only the *swara* patterns based on the thirteen *śrutis*. If the corresponding fourteenth pattern is also included then the potential of these *rāgas* in awakening of deeper sentiments/emotions and elevation of vital energy would enhance substantially.

Associated with every branch of knowledge, every kind of art, everything, there exist two major categories of contrary applications – constructive and untoward or destructive. So it is with the field of music. The deleterious effects of music include -- excitation of erotic sensation in the name of entertainment, and rapid beat and high pitch of certain compositions that induce intoxicating effects. Unfortunately, the so-called modern music that is popular among the masses – especially among the youths, these days falls under this negative category. Nevertheless, realization of the positive effects (of the refined kind) of music by the intellectual and scientific community and its accelerating use as a therapy in some advanced countries promises a revival of the ancient glory of music.

Going by the prophecies of some visionaries, the future era will witness an elevation in humane sentiments and moral

ideals. Music as a manifestation of the *Nāda Brahm* is going to play a significant role in excelling the emotional level of mankind. It would indeed reflect the *satyam*, *ṣivam*, *sundaram* forms of the *Nāda Brahm* if its origin and implementation as a means for *swara yoga* is understood thoroughly and its creative effects are naturally incorporated in the daily life.



## Scientific Applications of Music

**I**t is well known that the impact of one element on another produces sound. The atoms and subatomic particles of the element that is knocked vibrate and generate corresponding quiver in the molecules of the surrounding medium (air or ether) too. The waves propagated by these vibrations in the medium are consequently spread circularly in all directions.

It is also known that the human body consists of such a 'vast' network of a large number of interconnected nerves that practically every component of the body gets connected with every other via this network. If a small needle or a sharp corner of wood touches or pinches one ear (or any other body- part), the body feels an instantaneous shiver as though an electrical charge is induced in it. By the same mechanism, vibrations in the surrounding air when reach the ears also titillate every component, every atom of the body, although we do not always experience them because of their subtle intensity. Different kinds of sound cause different kinds of effects on various components of the body because of the corresponding

variations in the type and intensity of the resultant currents in the body. If these vibrations happen to be generated by music then the associated quiver in the body- current would also be rhythmic and of a 'tuned' (harmonized) intensity.

Sensitivity of the body depends upon the extent and manner in which its softest and tiniest components oscillate upon receiving the external or internal vibrations. Our ears cannot generally hear the sounds generated at a frequency higher than 450000 or less than 14 vibrations per second although the sound- waves of ultra or higher as well as the infra or lower frequencies do affect our neuronal system and hence the entire body. The perception of sonic signals (energy waves) by the neuronal system generates consequent vibrations in the cellular and molecular components of the body. If the amplitude of sound-waves in the audible frequency range is synchronized with that of corresponding compressions and expansions of the soft tentacles inside the body, the non-compatible external (invader) particles, molecules or the germs etc on the cellular membranes would be smoothly thrown off.

Sonic waves generated by music are indeed synchronized because of their rhythm and consistency of tune and amplitude. Like the audible frequency range, the range of such energy-waves suitable to the natural frequency of a human body is also healthy. The waves generated by soft and melodious music fall under this category. The effects of cleaning (i.e. of removing the heavy or foreign molecules and germs etc from) the body components is optimum if such music is heard or practised in a calm and relaxed state of the mind (and hence of the neuronal system), because, in this state, no other pressure or excitement would perturb the synchronized compressions and expansions of the cell membrane. This is how the regular practice of

listening or performing of soft and melodious music in the early hours of morning or evening helps prevention from diseases and offers maintenance of the healthy functioning of the body.

Rhythmic compression and stretching of the nerves and muscles in response to the impact of sonic vibrations of sonorous music shows the potential of such music as a regulator for neuromuscular dynamics and for the treatment of some neurological and neuromuscular disorders and diseases. A Bangalore based research organization, named Pawāni, is reported to have conducted several experiments on the positive effects of music on Metabolism, Biorhythms and Neurological secretions.

Dr. Ronald Doha of Germany opines that the impact of musical vibrations regulates the secretion of Adrenaline hormone, which by stimulating blood circulation helps alleviation of pain in the body. The team of Drs. Backer, Birdman and Bucking has recorded some positive effects of music during several surgical operations in Chicago. Thus, apart from its therapeutic uses like that of the ultrasound or the lasers, the sound of music could also be considered as an effective pain-killer; experiments should be conducted to calibrate its appropriate 'doses' for different types of body aches.

The specific hormonal secretions induced by music also seem to affect the animals in a variety of ways. Many examples of increasing in the release of milk by cows in Europe support this hypothesis. Similar experiments are reportedly carried out in the Venkateshwar temple in India. Melodious records of classical music are played here in the open air every day in the early morning. The daily exercises of vocal and instrumental music of the inmates of the temple premises also go on during

this hour. It is reported that the cows on this campus give more milk than usual when they are kept in this musical treatment. Moreover their calves, colts and fillies, who regularly listened to music, were also healthy and grew up fast into stout oxen/bulls and cows. It is said that one day when there was a shortage of green fodder, all the cows were given dry fodder here; despite this ill nourishment, the cows, which were kept under the melodious ambience continued to give larger quantities of milk.

Some research scientists have found that loud singing of certain soft tunes (*komal rāgas*) of Indian classical music relieves one from despair and dull moods. The effects would be more intense in boosting the energy and morale, if these *rāgas* are played or sung systematically at a particular time every day.

Music therapy has, since past few decades, gained recognition in France, Germany, Japan and U.S.A. It is commonly being used for the maintenance of health and cure of certain kinds of physical and mental weaknesses and psychosomatic disorders. The effect of music is found to work slowly but with a gradually increasing momentum on the mentally underdeveloped and insane patients.

Prof. Ludwig of Munich has developed a separate music therapy unit in a clinic for psychological treatments, especially for the teenagers. Here, the patients are given suitable 'doses' of music along with other medicines. Distinguished psychiatrists, Drs. Peter Neumann and Michael Sandors have opened similar clinical centers where only music therapy is used to cure the mental patients. Dr. Doha has also successfully used music in treating the mental illness of some children in Germany. Prof. S. B. Kodatff of Russia is using music for controlling some neurological problems.



In 1962, two twin sisters, suffering from a complicated physical and mental disease were reportedly cured only by music therapy. Many doctors had tried several advanced treatments on these two girls but in the vain. At last, Dr. Kurtz tried out an entirely new experiment. He had put up one of the girls with a group of some other psychiatric patients, whose mental sickness were also diagnosed as incurable and who, because of their insanity, used to make a lot of noise. On the very first day of his experiment, Dr. Kurtz observed that the girl felt extremely uncomfortable in this noise and she quietly moved to a corner of the hospital and started striking a drum kept there. This became a routine that whenever the other patients would make noise, this girl would start 'playing' the drum. The doctor gave her two handy wooden pieces; soon the girl started striking them in a regular fashion as though she is playing a musical instrument.

Observing the girl's behavior, Dr. Kurtz got an idea of trying out music therapy on her. He gave her different musical instruments to play with. To his surprise, the girl slowly started playing most of them in a rhythmic manner. Gradually she gained confidence and after a few days, she even began to understand the doctor's instructions and started responding to his queries via her music. Inspired by these observations, Dr. Kurtz gave regular treatment by music therapy to both the sisters in a special hospital to bring them back in the group of normal people. This was the first major experiment, conducted in Berlin (Germany) on the treatment of a mental ailment by music. This was also the first successful demonstration, in the modern world, of the unique potential of music in curing the complicated and otherwise incurable diseases.

Ms. Amelia G. Kursey had suffered a paralytic stroke in the childhood. Due to this attack, her limbs were disabled. In spite of the long-term treatments given by several medical experts, her condition could not improve. During this period of trauma, she once listened to a record of an excellent musical performance and got interested in music. She began the regular practice of singing on her bed; as she was unable to play any instrument, her teacher or friends used to play it besides her during the daily practice-session. Soon she perfected controlling her voice as per the musical notes. She used to sing with deep emotional support for hours together. The melody of music massaged her nervous system. As a result, her physical disability also recovered gradually. After some time she was able to play her musical instrument and became perfectly normal in couple of years. Now she was able to walk or run like any other healthy person.

Because of her dedication for music, Amelia became a popular singer of the western classical music in the later years. Eighteen years later, she had mentioned in her memories regarding her healthy and hearty life since she started regular practise of singing every day for half an hour at least. She used to give the credit of her beauty, charm and health to music only. In those days, many of the young women in Europe and America were inspired by her comments and they used to learn music for maintaining their beauty.

In a peculiar case recorded in a hospital of California, a patient had suddenly become mute. The doctors analyzed his inability to speak and found that it was not a 'loss of voice' instead, a speech disability caused by some mental or neurological disorder. No established medical techniques could improve his condition. Then a social organization, called

"R-for-R" (*Recording for Recovery*), of America came forward to help this patient. The special musical records developed by this company for therapeutic use in complicated mental problems were played in his room for a fixed duration of time every day. After thorough experimentation for about two years, there arrived a bright day when this person was so excited in cheer after listening to a record of his liking that he started humming happily. Soon his 'choked' voice got opened up at full stream and he began to talk normally.

The Kremlin Medical Center of Russia is known for its experiments on music therapy. The cases of insomnia, depression and a number of whimsical manias and psychological problems have been successfully treated here by this new method. Music is used here as an essential support along with regular medicines in the treatment of other diseases too. Prof. S. V Paikoff, a reputed expert of this hospital has shown that soft music has soothing effects on the mental and neurological functioning. As per Dr. Walter H. Wallace, music is also useful in the treatment of common cold, jaundice, hepatitis and high or low blood pressure. Dr. Walter Kuga, a psychiatrist of (West) Germany argues that music provides an excellent support in the cure of absent-mindedness, melancholia, hysteria and insanity. Some doctors of the Jodhpur medical college in India have also reported success in the use of music as a therapy against several diseases. They conclude that music is an excellent painkiller and healer. Patients usually forget their worries and feel mental peace by listening to the melody of music.

The 'Hospital and Health Management' journal of London had sometime back published the results on the effects of music based on the studies carried out by six hospitals in England.

Reports of the maternity units of these hospitals showed that background music helps maintaining health and happiness of the mother and the infant both. The studies of other departments had also indicated a positive support of music in offering instant relief to the patients from their physical and mental pains.

It has been found in general that the women who regularly listen to melodious music during their pregnancy feel significantly less or no pains at the time of delivering the baby. Moreover, this prior dose of selected music also helps healthier development of her child at physical, mental and spiritual levels. Psychological consultants often advise pregnant women to keep in touch with soft, inspiring and devotional music.

Some medical experts in London are engaged in deeper aspects of the effects of music. They are experimenting on the pregnant women to test how the baby in the mother's womb responds to different musical tunes. Their research is aimed at analyzing the process of the development of hearing sensation in the growing foetus and testing the effects of rhythmic sound on the development of its neuronal system.

Dr. Arnold Ihara's article published in a medical magazine of London highlighted the possibilities of healthy survival and longevity by proper practice of music. The author had listed a number of musicians of international repute who enjoyed excellent health in old age. All these experts had acknowledged music as the basis and secret of their good health. This list included the names of 88 year old Mr. Pierre Monte of Switzerland, 78 years old Mr. Otto Klemperer of Germany and an Italian musician, Mr. S. Vardy, who was 80 years old at that time. These people had not pursued any research on the therapy and related principles of music in order to get expertise

in its science. Rather, they had done regular and engrossed practice of music and thus benefited from positive effects of music in their own lives. They regarded liking and dedication for good music as the key to all round success in human life.

### **The Advent of R-for-R Organization:**

Dr. Ralf Lawrence Hoy was a film director and a great music lover. He was also popular as a violin player since the time he was working at the Alcoa aluminum company at Pittsburgh (USA) about half a century ago. His wife Gretchen was also a good musician – she played the piano.

It happened around 1950s, when the couple went to visit a lady in their acquaintance whom they had not met since long. They were shocked to see that she was suffering from a severe disease of the arteries and was bed ridden due to stiffness. Prolonged illness and ineffectiveness of various medicines had put her into a state of despair and gloom. Ralf and Gretchen were more worried when they found that her doctors had lost all hopes! They started visiting this friend more frequently and thought that some day they should perform their music to offer her some peace of mind. When the musical currents of their violin and piano were flowing at peak in her room, the patient felt as though this melodious sound was causing some soft massage on her body. She felt relaxed and went into sleep while the music was still going on. She had not slept so well ever since she became ill.

The Hoy couple was extremely happy to find that they were able to offer some relief to the patient by the melody of music. This strengthened their belief in the constructive power of music and they decided to give her intensive cure by music in a more systematic manner. They recorded a number of sonorous

classical compositions and sent the tapes to this patient so that she could listen to the specific music of her liking every day. The patient used to enjoy playing those records and used to feel as if the titillating flow of music was removing the tensions and stiffness from her veins and arteries. It was a pleasant surprise for people around her to see that she recovered completely after few months' intensive treatment by music. This case was a demonstration of greater healing power of over modern modes of treatment and medicines in regulating the nerve muscle dynamics and neuronal activity.

This incident inspired Dr. Ralf to open up a company named "R-for-R" - *Recording for (Relaxation / Reflection / Response and) Recovery* dedicated to social service. This effort promised new hopes for many patients of rare and declared incurable diseases who were living under the miserable conditions of depression and anxiety. This has now become an organization of high repute in the USA and Europe. Many volunteers have offered their services for the noble cause of R-for-R. Initially R-for-R had sent its records to the army hospitals where severely injured soldiers were benefited by the magic of music. Many of the otherwise 'incurable' patients were treated by music therapy given by this center.

The establishment of R-for-R has introduced a glorious in the modern history of music and has also set a learning example for the Indian society, which, despite having a rich heritage of original classical music, has chosen to ignore it. If we the Indians, had honestly pursued the practice of our original *śāstrīya* music, its inspiring effects would have helped clearing the minds of our masses and awaken collective intelligence. As a result, we would not only have got rid of the social ailments like dowry, castism, nontouchability, superstitions and

religious fundamentalism, but, would have also made substantial progress in reviving the glory of our art, literature, ancient sciences and culture.

Dr. Hoy's efforts deserve commendable appreciation because he took initiative in giving the benefits of music as a selfless social service instead of commercializing his therapies or pursuing research on –“why and how, or which power of sound makes music so specific?” ..., etc

With the beginning of this mission, Dr. Hoy had resigned from the Alcoa Company so that he could devote time for this social organization. He started living near Chatuge Lake in a village of North Georgia and developed a well-equipped sound recording theater for his own orchestra company. He believed that someday, music would enlighten humane sentiments and govern the development of ideal society because of its unique power of inspiring the emotions.

Dr. Hoy's courage, his liberal attitude and compassion for the depressed and the disabled gave new dimension to the experiments on music therapy. It indeed did a great service to the field of music too by attracting people towards the dedicated practice of soft, devotional and classical music. How many of us, in India, who know music or who boast about our great cultural heritage have made use of our expertise beyond the barriers of our narrow minded, selfish and arrogant attitude?

The noble pursuits of the Hoy family received due recognition and support from the people of America and Europe. The New York Philharmonic Orchestra, the celebrity actor Danny and the Mormon Tabernacle Company, which is internationally renowned for its production of religious and devotional songs and music records – have donated several

equipment and records to R-for-R. The late President Kennedy had also donated many copies of the recordings of the musical concerts held in the White House. The musicians like Janis Herschante have offered their talents and time to this organization free of cost. Some companies of Norway and the Chalets Gulbekiyan foundation of Lisbon (Portugal) has also donated large number of music records to R-for-R. This organization has over 700 classic records of international reputé and about two thousand music institutions associated with it. This organization stands as a mile stone to guide all those who care to elevate the status of music in the modern life.

The Indian classical (*śāstrīya or shastric*) music possesses a treasure of *rāgas* like *Toḍī*, *Dīpaka*, *Megha Malhāra*, *Pachadā* etc and the instruments like *Śamkha*, *Bherī*, *Vamṣī*, *Mṛdamga*, *Patana*, *Kahaha*, *Paṇava*, *Koṇa*, *Vīṇā*, *Sitāra*, *Kilkilā*, *Sweda*, *Krakachasetc*. These can readily offer the most advanced applications that perhaps would not be achievable despite long-term research in the modern science. Those who honor the *shastric* music and have had the opportunity to be in touch with its symphony may follow the example of Dr. Hoy and come forward to revive its prestige and disciplined practice. Support of the public and the leading institutions of art and culture can certainly create a revolution in the modern trends and thereby elevate the status of music to its original glorious heights.





## Examples from History and Directions for Future

**T**he use of music for removing the toxic effects and for reducing the pains of childbirth is commonly cited in the ancient history of Egypt. Hippocrates, the Greek philosopher and ancient expert of medicine and music, had incorporated music as an integral part of his medicinal practices. The Greek doctors Goleman, Marianne and Asculopious were also renowned for their expertise in music-therapy. They were known to possess efficiency in adjusting the tunes of vocal and instrumental music according to the disease conditions and the 'natural frequency' of the patient's intra-body sounds.

The European history contains the examples of three mighty kings whose insanity was cured by music when all other medicines and therapies had failed. These examples mention about England's George II, who was suffering from melancholia and Spain's king Philip V, who was 'captured' by insanity. Israel's king Saul had once become almost mad. Eminent musicians of the respective states of these kings had helped their recovery with the help of specific musical

performances. Dr. Hegel had strongly recommended music as a substitute for medicine and as a good measure of preventive care.

It is believed that Tansen, the celebrity singer of the Indian history, was dumb since birth. He was unable to speak until the age of seven years. His father Makarand and mother Kalindibai had tried their level best for the treatment of their child. As a last trial, they took him to the classical singer Mr. Mohammada Gosa, who was highly recognized at that time for his knowledge and expertise in the Indian classical music. He was known to have treated many deaf and dumb patients by the magical effect of his singing. During the period of treatment of Tansen, Gosa used to sing in front of this boy and constantly encourage and inspire him to sing along; gradually the melody of music triggered movements in young Tansen's vocal cord and he began to speak and sing in an exceptionally sweet voice.

The ancient history of India stands witness to the golden era of the genesis and divine evolution of music. Out of the four Vedas, the *Rigveda* is said to contain the absolute knowledge of the essence of the existence of the world, life, Nature, the eternal creation and the ultimate end. The *Yajurveda* consists of the practical implementation of this knowledge in terms of the methodology and rites of *Yajña* and related activities. The *Atharvaveda* is an abstract compilation of all the sciences and the *Sāmaveda* is the masterpiece of the knowledge of music. This *veda* also describes the principles and directions for specific chanting-patterns for the Vedic *Mantras* (Hymns). It is the sonic configuration and the flow of *Nāda* in the chanting patterns of these *mantras* that make the latter so powerful. The stanzas of the holy *Quran* are also supposed to be 'read' under a specific discipline of musical tunes. Devotional prayers become lively

with the support of music because of its potential of awakening the inner sentiments.

Music is not only a creation for recitation of poems or hymns with a melody, nor is it only a subject for study and practice of an art according to a plausible set of principles. It is indeed an ocean of knowledge, which has got multiple branches associated with the physical, mental and spiritual domains of human life. It is a treasure of the eternal energy of *Śabda* and *Nāda* that could vibrate the *jaḍa* (inanimate) and the *chetan* (animate) activities of Nature. The Indian Culture had given due recognition to music in every aspect of life. The musical chanting (*sāmagāna*) of the *Veda Mantras* is also considered as a key element for successful experiments of the *yagyas* (fire rituals).

Music therapy was of paramount importance in the ancient Indian society. Today, nobody has the complete knowledge of the specificity of the *rāgas* like the *dīpaka rāga* that could kindle the lamps without fire or electricity, or the *sarpa rāga* that could compel a snake to extract its poison from the body of the victim of its bite, etc. Only a partial knowledge of the *rāgas* like the *sarpa rāga* is now available with some snake charmers who play it on the *bīna* to attract and capture these reptiles.

Spiritually enchanting power of pure music has been realized by a number of great personalities in the modern era too. For instance, Mr. Kangova regarded classical music as a stream of the flow of the innermost sentiments that can soften even the rocky hearts. Mahatma Gandhi used to say that music gives him peace and that he had taken its support in the moments of severe difficulties. When he was suffering after a violent attack on him in South Africa, Mr. Oliver had sung a devotional song "Lead the kindly light [...]" for him. Mahatma

Gandhi found the flow of his music so intense and emotionally soothing that it eliminated all his agony. According to scholar Mr. V. Fiji, music induces enthusiasm in every living being. The rhythmic flow of sound in its melody enhances the sensitivity and activity of the neurons. Music is not only a medium of entertainment. Rather, it is a power that may even vibrate and transform one's intrinsic feelings.

Scientific investigations on music in the modern times have reaffirmed the fact that – music plays wonders on the psychology of the humans. More significant are its positive effects on the psychology of the patients of some dreaded, incurable diseases who have been either discarded by their families and societies or who themselves feel isolated because of their prolonged sickness.

In an international congress on music therapy organized in Berlin, it was discussed that most of the insane patients, who are deserted by the society as mad, are not totally hopeless with respect to the possibility of treatment. Their brains do not become totally out of control. It is mostly the loss of the mental balance – due to emotional disappointment or shock that gives rise to insanity in such cases. In the state of social and emotional isolation, the mental abilities of such persons get buried in the shell of terror and despair; this further complicates the situation. The delicate symphony of music massages the nerves and muscles in these patients too and gradually activates their sense of mental control by rendering some sort of emotional content that induces a feeling of hope and courage in them.

The hypnotizing power of music works at the level of the conscious and subconscious mind. An art magazine of USA, entitled 'The Other East Village' had recently published a special article on the peerless, intensive power of the Indian

classical music on the human body, mind and consciousness. The Indian classical music is given highest recognition for its majestic power of awakening and enlightening the hidden emotions and illuminating the inner folds of consciousness.

Music is also equipped with the thermal and light energies 'inherent' in sound-energy. It is because of these physical energies that music even affects the body and brains of those who might are not fond of listening or practising it. Music therapy in its initial phase in the modern times was derived from the potential of instrumental music alone. It is only since past several decades that vocal music and the role of one's *voice* in stretching the impact of singing has attracted attention of sincere researchers in this area. Apart from the experiments on music therapy, most of the research on other applications of music - e.g. in increasing the agricultural and animal products has been conducted in the developed countries alone. This is the reason why, despite its tremendous potential in uplifting the internal level of spirituality of the human beings, the scientific use of music remains confined to physical aspects and the worldly needs of the materialistic society in general.

Nevertheless, the positive results of several scientific experiments have raised the possibility that music will regain its original glory because of its intimate relationship with the sublime layers of the human consciousness. Some scientists and psychologists have observed that by the smooth effect of soft, slow and sweet music - played in some classical *rāgas* takes the listeners' brain into the *alpha state* where his mind becomes calm and still as though it is in a state of deep meditation (trance). Recovery from the destructive effects of noise pollution, inimical, perverted or depressive psychology and neurological

disorders begins in this state by inducing a fine churning of the latent ocean of consciousness.

The human heart and a specific core of brain are regarded as the 'functional core' for experience (feeling) and expression of emotions. Music is found to cause a direct and paramount impact at this delicate core. The research work of Dr. Barbara Brown has shown that the rhythm of heartbeat rapidly adjusts itself to the tune of music. The soft vibrations of music even harmonize the frequency of heartbeat so that the heart begins to beat according to the symphony of the *swaras* (musical notes).

A Swedish scientist Dr. Hill has recorded the 'musically educated' movements of heart with the help of ECG, Echocardiogram and Polygraph techniques. After a thorough analysis he concludes that -- if the subject listens to a melodious music consistently for about thirty minutes at a stretch, his heart-beating would slow down gradually and eventually he would reach an almost 'still' state like that of the *yogis* in the deep state of trance, attained during the *sādhana*s of *Nāda*. This may be likened with the ultimate state of beatitude and absolute bliss. Dr. J. D. Taylor of the Middlesex Hospital, London has conducted successful experiments on the treatment of the subjects when the latter are conditioned into the above-mentioned state of absolute unconsciousness by the special effects of music. He feels that this method would be useful in deciphering some yet unknown functions of the human brain.

The Indian *rishis* had, since the time of yore, visualized the tremendous potential of music – as the most powerful source of realizing the eternal currents of *Śabda* and *Nāda* indwelling in Nature. The *mantras* of the three *vedas* – *Rig*, *Yajur* and *Atharva* were the compilations of the streams of knowledge about the *Śabda Brahṁ* and those of the *Sāma Veda* were associated with

the *Nāda Brahm̐*. The *Veda Mantras* are supposed to be effective only if they are chanted perfectly by a sincere *sādhaka*. The discipline of the *Gurūmukha Sāadhanā* of a *mantra* as described in the *ancient texts*, essentially implies that the *laya* and *gati* (musical compositions) associated with the chanting patterns of a specific *mantra* must be learnt from an authentic spiritual master (*Guru*).

The *mantra vijñāna* (ancient science of *mantra*) is incomplete without the incorporation of the *shastric* music developed by the *rishis*. The ensemble of different compositions of the eternal *swaras* constitutes the knowledge of the science of *Nāda*. This branch of knowledge and the *Shastric* music emanated from it was used by the *rishis* for the purpose of elevating the emotions and thoughts of all human beings up to the highest realms of divinity. *This* music is an ideal nutrition for the inner self. Research in music and endeavors of bringing it closer to the people should also focus on understanding the intrinsic features of the *Sāma Veda* and the connection of the *shastric music* with the spiritual *sāadhanās*. Let us hope that these efforts would flourish and help revive the noble culture of the *Vedic* Age.



## Body, Mind and Classical Music

**I**n the earlier sections, we had discussed about the immense power of music and its role in human life. Here we shall cite some more examples and research findings that have strengthened the faith of researchers and given rise to dedicated efforts aimed at resurrecting ancient glory of music in the 21st century.

The *Śāstrās* (ancient Indian texts) on music describe a large number of *rāga-rāginis*, which offer umpteen positive effects, specific to their musical compositions and modes of practice. Devarshi Narada has stated in the *ślokas* (verse) numbered 80-83 of the fourth section of the “*Samgādhyāya*” in “*Samgīta Makaranda*” that – “singing of the classical *rāgas* bestows longevity, glory, intellect, prosperity and a religious way of life. The children (closed family members who live in the ambience of *sāadhanā* of *shastric* music) of such a dedicated disciple of classical music too benefit from it [....]”

This *Śāstra* further describes that the practice of the *rāga Śaḍava* alleviates fatigue, worries and mental depressions and helps enhance one's beauty and charm; *rāga Ppūrṇa* is suitable



for extending the healthy survival of the body and sharpening of wisdom; *rāga Auḍava* controls physiological and psychological disorders; *rāga Mālkonsa* awakens compassion and the *rāga Jjaijaivantī* uplifts the level of vital energy. Some *rāgas* generate physical changes in the body systems and the surrounding atmosphere too; for example, *rāga Dīpaka* generates heat in the atmosphere; *rāga Kalingada* induces rapid increase in the heartbeats of the audience as in those of the singer(s) and musician(s). The effect of *rāga Pīlū* is so peculiar that often the singer(s), musician(s) and the audience start weeping when this *rāga* is performed. There are many other *rāgas* that also affect the status of the body, mind and deep sentiments.

Experts of the science of music argue that the sonic patterns generated by the *rāgas* are subtle like the infra and ultra sonic waves and they induce creative effects as per their inherent characteristics and the intensity and tuning of the musical instrument or the voice of the singer. The high-speed loud music causes destructive or detrimental effects because of the corresponding intensive effect of sound associated with it.

The duo of scientists Charles Keel and Ogolsky had conducted series of experiments on some psychiatric patients. These patients were divided into two groups; one group was exposed to melodious music – especially some Indian *rāgas*, which are known to generate happiness and enthusiasm. The other group was subjected to listening to the modern pop music. The results of several such experiments confirmed that over 80 % patients in the first group were cured by the soothing effects of the classical music while the condition of the patients in the other group had mostly worsened because of just the opposite effects of the high-pitch pop music. These scientists

had recorded similar 'patterns' of difference in the effects of the two opposite forms of music in many different kinds of experiments, the details of which are presented in their book titled "The Musical Meaning"

Dr. Juliet Elvin's book on "Music Therapy" also cites many scientifically investigated cases concerning the effects of music. The author concludes that melodious music has remarkable healthy influence on our body, mind and emotions. In his book entitled "What is Therapy in Music Therapy?", Dr. Austin M. Delleriers of the USA has analyzed – why music has an effect on the human beings. He argues that the specific sonic power and the subtle structure of the sound-waves generated by music induce specific vibrations and hence secretion of certain elements (in the brain) that are important for the proper functioning of the brain and that are supposed to be essential for the treatment of the neurological and psychological disorders. Some medical experts have studied the changes in blood pressure, pulse rate, respiratory cycle, muscular energy and other parameters of physiological activities on different subjects kept under the effects of different types of musical flows. (Interested readers may refer to the Journal of Music Therapy.)

In a series of experiments of the above kinds, Dr. Keeth and colleagues have found that the net effect depends on the type of music and the physical and mental condition of the subject. It has been observed that the impact of music is intense and works fast on those who have liking for music. Those insensitive to music take longer time to receive its "vibrations" The doctors of Shanghai Conservatory of Music in China have reportedly developed an instrument-based technique of 'Electro Music Therapy' in which the type and duration of the musical dose are

controlled as per the type and extent of the disease and the mental makeup of the patient. In this sequel, some music-therapy machines are said to produce melodious tunes, especially useful for the treatment of some diseases of the digestive system and of the cardiac and neurological functions.

Some laboratories across the world are engaged in analyzing the sonic effects of music on human body and mind with the help of Oscilloscopes, Harmonic analyzers, Decibel Meters, EEGs along with Biofeedback and Multi-channel Polygraph recorders. Advanced scientific researchers in this area have developed a sonic instrument, which produces the spectrum of seven colors (of light) along with the seven musical *swaras* (of sound). When switched on, the 'C' reed of this instrument emits red color, the 'E' reed yellow and the 'G' reed produces blue color..., etc. With the help of this instrument, a patient is exposed to the music associated with the color(s) most suitable for his rapid recovery.

The sonic waves of around 1 to 5 megahertz are found to be extremely useful in many surgical operations. The use of ultrasonic and laser based noninvasive techniques for the operation of cataract and for the diagnosis of several diseases of the eyes and of the internal body parts etc is now a common practice. A device called Lithotripter, developed by some scientists of the Dernier Medical Technology Center, Munich (Germany) can powder the stones in the kidneys or bladder in a matter of 30 to 40 minutes in an average case. The powdered stones are easily removed from the body along with the urine. Such instruments are in heavy use in the advanced surgical units in the other countries too.

The music therapy society of Britain has claimed that functioning of the lungs and regularization of breathing pattern

by controlled effects of music can easily treat the patients of asthma. Some German scientists have shown that certain types of stomach ulcers can be cured effectively and at a faster pace by music without surgery. Dr. Herbert Spencer had also conducted some experiments on music therapy. He had reported that slow and soft music gives recovery while the same melodious musical composition played at slightly higher, but controlled intensity and little faster speed elevates low blood-pressure up to a normal level.

The high pitch, ultra-fast beating in pop and disco on the contrary is harmful like noise pollution. Scientists have identified noise pollution as more dangerous to health as compared to the air pollution because it disturbs the nervous system to a great extent. The increasing number of deaf and psychiatric cases in the pop-loving countries like America and in the noise-polluted metropolitan cities around the world has already begun to ring the alarming bells.

Fast and loud music is found to increase the pulse rate by 22% at least and the speed of respiration up to 50% on an average. Dr. Lawrence Smith has shown that loudness of the order of 60 decibels or more upsets the digestive system. Dr. Foster Kennedy, a neurologist in New York has found that even when a small balloon or an air-tight paper bag bursts, its loud sound can increase the pressure on one's brain by 4 times for a duration of 1 second or so. This increase in the brain-pressure is more than that caused by the drugs containing caffeine and nitroglycerine. He opines that if this noise is made rhythmically for substantial amount of time, it might lead to the failure of the brain and even to sudden death as a consequence.

Background music of specific kind is found to lessen the fatigue of the laborers. It has been demonstrated in several

experiments that such effects of the melodious music do increase the concentration and creativity of the students. A musical company named Mabuchi has design special background music for the typists. It has been found that playing this music in the office environment reduces the typographical mistakes by 38.8 % on an average. As a common practice in many countries, the passengers waiting at the airports are often offered peace of mind by the special effects of background music. The production of a variety of electronic repellents for the insects – including the mosquitoes and the tiny animals like the rats is also gaining market these days. These instruments work on the principle of generating, by means of electromagnetic waves, certain (musical) vibrations of sound that agitate the targets and induce abnormal restlessness in them.

Some sonic instruments work along the principle of recognition of variations in the sound waves like the radar do in order to trace the submarines in deep waters or to identify the position of an object in the space. Dr. John Ruszdo, director of the Harry Diamond Lab, USA has visualized that by appropriate superimposition of the ultrasound waves one could generate about  $10^{10}$  Watts of power from a single instrument. There are many wonders of ultra and infra sound which are now within the reach of the science of acoustics. Likewise semiotics, another branch of acoustic sciences is now a center of attraction of many researchers. This branch named Sound Chemistry deals with the chemical effects of sound.

It was observed in some experiments that when ultrasonic waves were emitted on a solution of potassium iodide, its color became light yellow; similarly, the color of mercuric chloride

was changed into dirty brown. The effects of sound on chemical processing are also seen in agricultural experiments. It is found that the rate of sprouting of the seeds increases by the effect of some subtle waves of specific musical sound. The agricultural scientists of Moscow have found about 50 to 90% increase in the production of wheat and barley by such induced effects of sound.

In view of the chemical effects of sound and considering the intensive effects of music on human psychology, some scientists thought that the specific sound waves generated by music do affect the secretion of hormones in the human body. Music induces observable changes in the (bio) chemical processing inside the body. According to a distinguished Russian scientist, Dr. Kudrayavatsev, the currents of melodious music massage the hormone secreting glands in a specific manner while the harsh and fast 'music' (sound) excites them differently. This is how different kinds of music induce the secretion of different types of hormones and show the corresponding effects on the functioning of the body and the mind.

Dr. Edwina Meed of England and Dr. Edward Podolsky of California, USA have also given supporting conclusions after research on the effects of music on human body and mind. Dr. Donald Doha of (West) Germany and Dr. Tamhane of the University of Poona, India have observed that melodious music helps controlling the secretion of *adrenal* and thus checks the disorder caused by the irregular secretion of this hormone. Doctors Charles Keel and Agoliki had also reported somewhat similar results in 1966 in their article entitled "Musical Meaning –A Preliminary Report" published in the Journal of Intonomusicology.

Dr. Luis Wermer's book titled "The Gland Regulating Personality" presents details on the science of *swaras*, with respect to the relationship of music with hormonal secretion. Dr. Luis has particularly analyzed the thyroid gland because it is located inside the throat and hence has direct connection with the effects of the vibrations in the vocal cord. He states that normally the hormones secreted by this gland not only control blood pressure but also generate feelings of love and sympathy. Disorderly function of this gland on the contrary induces the tempers of animosity and jealousy along with obvious deleterious effects on the physiological functions such as the blood-temperature variations etc, that are controlled by *thyroxin*.

The practice of vocal classical music regulates the functions of the thyroid and hence helps upkeep one's mood, free from stress and enlightened with healthy emotions. A Russian scientist and musician Dr. Goertzel has expressed similar views. It is believed that the effect of practicing or listening to specific sonorous musical tunes also controls the secretion of the hormones like, *endorphin* and *encephalin*, which are associated with the emotional system. Some researchers attribute the significant effects of music on the functioning of body and brain to the fact that the rhythmic flow of sound generated by music affects the biological clocks. The extent and quality of such effects are directly proportional to the intensity, pitch and melody of the musical composition.

The ancient experts of Indian classical music had classified three major characteristics of the *kaṁṭh nāda* (musical voice) associated with the *prakṛati* (natural constituent) of *vāta*, *pitta* and *kafa* described in Ayurveda. According to this theory, the *nāda* (music) generated by the voice of a person whose inherent

tendency is *kafa* would normally be stable, intense and very pleasant; the musical sound of this type of voice is termed as *kahula* or *kafaja*. The voice of an individual of the *pitta prakrati* produces sharp *nāda*, which generally sounds shrilling and is not pleasant in its natural form; this type of voice is called *nārata*. People with excess of *vāta* usually find it difficult to maintain a consistent pitch and amplitude of their voice and cannot be good singers in general. The *nāda* of such a voice, if high-pitched, is called *bombara*. Similarly, there are classifications of the *kamṭha nādas* corresponding to different combinations of *vāta*, *pitta*, and *kafa* tendencies.

The basic tendencies of *vāta*, *pitta* and *kafa* are affirmed in Ayurveda to be responsible for the activity level, consciousness, or dullness of various functions of the body and mind. The quality of one's *kamṭha nāda* is described in the *Śāstras* of Music to be correlated with these elements. The pitch (of the voice) is supposed to be governed by *vāta*, loudness by *pitta* and the tonal characteristic by *kafa*. According to Ayurveda, different 'natural' combinations of these maintain 'harmonious functioning' in the living beings and natural products. Any imbalance in the naturally suitable proportions of these elements in an individual affects his nervous system and the biochemical and physiological functions of various components of the body and the brain. The quality of musical *swaras* of one's voice is also associated with these elements. Thus, which type of music will have what type of effect on a person would largely depend on the *prakrati* of that person – identified in terms of the coherent combination of the three basic tendencies.

Dr. V. V. Gore had presented interesting features of the interrelationship between musical effects and the *prakrati* of the



audience in his Hindi article entitled 'Music and Ayurveda' [published in "Sangita Patrika" - 1962]. Few years ago, a hand written compilation was included in the government library of Bikaner (in India). This report contains specific knowledge about the therapeutic uses of the different *rāgas* of the Indian classical music.

If the mind and body of a person feels dull and drowsy or lethargic in general or his voice gets 'lifeless' then the level of his *kafa* needs to be reduced. The level of *kafa* in a person can be reduced by making him listen to the *rāgas* composed with the excess of the *śrutis* like *raudrā*, *krodhā*, *vajrikā* and the *swaras* of the *ṛṣabha* category. Similar treatment is required if his voice slows down by the *pancam swara* of the *śrutis* - *pāpinī*, *maṁdati*, *rohini* and *ramyā*. Higher proportions of *vāta* or *pitta* could be regulated by the *kafaja swaras* contained in the amorous *rāgas* like *Samāja*, *Tilṅga* and *Deśa* etc.

The Brahm Varchas research center, and the Dev Sankriti University Hardwar, India have been working, since past several years, on investigating the ancient branches of knowledge in the light of modern science. One of their projects deals with studying the changes in the (bio) chemistry of the human body after listening to different kinds of musical sounds and *rāgas*. On psychological front, the researchers here have found that pure music does have the potential to awaken devotional sentiments and let one feel the presence of the Supreme Consciousness. The positive role of music - in offering fast recovery from mental fatigue and certain physiological disorders to the patients has also been studied there. Sequential experiments are also conducted on different *sādhakas* and trainees - who come to attend the spiritual refinement and personality development programmes organized by

Shantikunj, Hardwar. Results indicate, on an average, noticeable increase in rejuvenating feeling of relaxation and the sentiments of serene love, compassion, inner courage and faith in humane ideals by special effects of Indian classical music used in *Nāda Yoga*. Lyrics of songs played in the ashram of Shantikunj are also found to play important role in inducing positive enthusiasm among the masses.



## Place of Music in Daily Life

**I**t is said that the routine chores of daily life also become interesting and enjoyable if music is incorporated with them in some respect. Until recently, when life was not so mechanized, most of the household works, including the grinding of wheat flour, fetching water from the wells etc, used to be carried in the average Indian homes by the housewives themselves. Mostly, the ladies used to do such heavy works collectively with friends or the other woman relatives in the (joint) family. They all used to sing together while rolling a stone-grinder or fetching water; grinding about 5 to 6 kilograms of wheat per day was nothing unusual of the women in a joint family. There were even different classes of songs that they used to sing while performing such different tasks. The melody of collective singing used to absorb their fatigue instantaneously. The male members of these families also used to take the support of music while working in their fields or carrying out some laborious activity. Such scenarios are still common in the countryside lifestyle in India.

The laborers, while carrying heavy weights or doing similar hard works are often heard making the musical sound of 'Hoishaaa. . ', etc. The humming of the maid servants, or the rhythmic sound of 'chhai... chhai' produced when the wet cloths are beaten up on a stone and the enjoyment of the washer-men in its tune – illustrate the essential role of music in eliminating the feelings of stress and fatigue and avoiding the monotony of the sundry chores.

It is not the body, rather the mind, which often gets tired, vexed or bored by some work; the corresponding experiences of the body are mere offshoots of the mental conditions. As enchanting music constantly keeps the mind upbeat, it naturally induces energy and enthusiasm in the body too. People, whose jobs at home and at the workplace are monotonous and do not involve any interaction with new persons or new environment, should make music as their companion. By humming good musical tunes or listening to melodious music in the background, one can always feel fresh and do the same job with more interest. People who give substantial place to soothing music in their day-to-day life often find it easy to create a happy ambience in their homes too.

Even the *japa* (mental recitation) of *mantras* could become a dry, mechanical activity if the ups and downs of specific chanting patterns were not associated with it. The *rishis*, the visionaries of the Vedic *Mantras*, were also the experts of *shastric* music. They had therefore devised musically perfect patterns of chanting (*sāmagāna*) of the *mantras* so that the *sāadhanās* of the *mantras* will always remain linked with the internal emotions too. Humming of such hymns or the devotional songs and playing their classical *rāgas* on the instruments would be the best way of incorporating pure music in the daily life, as it

would offer the multiple benefits of absorbing fatigue, inducing creativity and pleasure while also inspiring positive zeal and devotional feelings.

How and to what extent music can engross one's attention can easily be seen in the lives of great musicians. They literally forget everything while performing their daily practice (*riyāze*) of music. The following incident of the life of one and only, *ustāda* Ali Akabar Khan, the great master of *saroda* is an interesting and illustrative example in this context.

*Ustāda* Ali Akabar was the royal musician in the estate of Jodhapur those days. It happened when he was about to join his wife and a disciple for dinner in his own house one evening. The table was laid around 9 p.m. The *ustāda*, while walking towards the dinning table, saw a *saroda* fixed in a brand new leather covering. He could not resist trying out his instrument, which had a new look now. He planned to play it for 5 minutes only. His wife and the disciple also set with him in that room. Once Ali Akabar Khan started playing the *saroda*, he was so enthralled in it that he totally forgot the barriers of time and reached in a different world – full of the nectar of devotional 'passion' and bliss. The duo listening to his music was also enjoying the spontaneous flow of his music. This way, his initial plan of trying the instrument just for 5 minutes was stretched up to 4 hours! It was only around 1 O'clock in the night that the *ustāda* came out of his 'trance' and looked at the watch. He suddenly could not believe that he played the *saroda* so long without any prior planning! But, the pendulum of the clock confirmed it loudly that it was indeed 1 a.m. It is this level of mental engrossment and dedication for music that makes one such a great musician whose expertise remains unparalleled for centuries.

We all may not become expert musicians, however, by giving pure music a respectful place in our daily life. We can certainly benefit from its rejuvenating effects and, by and sincere practice under the guidance of suitable expert may improve our hold over the *swaras* and thus also support uplifting our inherent mental qualities day by day.



## Place of Music in Nature

**L**ong ago, Mr. Pelison, a French writer, was once sent to jail because of breaking some law. He had written a memoir on his jail-life. There he has described an incident as an exciting experience, stating that one day, when he was engrossed playing his flute, he saw a spider, which had come out of its web and was almost dancing at the tune of his music. At that moment he realized that music is a power, which can get linked with the consciousness existing in every living being. That is why the impulse of music can stimulate every a tiny creation of Nature.

Sensitivity for music can also be observed in many other tiny creatures. Recently developed instruments for repelling or 'gulping' the mosquitoes are illustrative examples of this tendency. If the (musical) sound generated by the synchronized vibrations of such electrical instruments happens to be of their liking, the insects get almost pulled towards it and end their lives by striking on its walls in excitation. If the musical waves do not produce agreeable sensation, the insects run away from the domain of the musical vibrations and are thus expelled automatically.

Dr. J. D. Richardson, a scientist at Miami, USA, has observed the music-loving tendencies in the fishes. He has also composed a special music, which could be played during fishing to capture large number of fishes that get mesmerized by this music. A sea animal named schero is said to be so fond of music that whenever it perceives certain musical tunes, it even risks its life and struggles hard to reach at the source from where the music of its choice is generated.

Huge Frazer has published an episode about a frightening incident of the Jululand farmhouse. It describes that – once, a woman, staying in one of the cottages in the farmhouse was not getting sleep so she started playing her violin around midnight. After sometime she saw two shadows, swinging with the up and down streams of the musical flow of the violin; she turned her face and looked back out of sheer curiosity. She was shocked to see that these were the shadows of a pair of the deadly snakes – cobras, which had entered her cottage by the attraction of the impulsive music! For few seconds, the lady's body was almost frozen but, soon she controlled herself and moved in the opposite direction while playing her violin more loudly; she entered the other room where her husband was sleeping.

The snakes followed her due to the hypnotizing force of music. Her husband got up because of the loud sound of the violin; she explained the situation to him in gestures. He had a gun and as there was no way out to send the cobras back without any problem, so he shot the snakes on the spot. This incident demonstrates the influence of music in the wild life and had also taught the residents of the farmhouse that music could even invite dreadful guests in their homes unless they take necessary precautions.



In another incident, illustrating the power of music on snakes, a resident of a village in Salempur, Rajasthan (India) had switched on the transistor hung on his shoulder while he was on his way back from the town one evening. As soon as he realized that a snake was following him, he just threw his tiny radio set on the road and ran away; he watched backwards after a few minutes, to his utter surprise that the snake had stopped chasing him and instead, was sitting near the transistor. He observed that the snake sat quietly at the same spot till the music was on and entered the shrubs near by as soon as the programme was over on the transistor. The marks on the road indicated that the snake had followed him for over a mile!

In several scientific experiments on a variety of animals, different kinds of musical records were played near their cages in some zoos. Significant effects of the music of their liking or disliking were noticed in the behavior of all the animals including the most agile and the most violent ones. The music of **their** choice made them cheerful and active while that of the opposite kind induced gloom or aggressive excitation.

How and why the fine-tuned vibrations of music affect the animals may be a question, which is yet to be answered completely. But, that they do so - has been effectively observed almost uncountable number of times in Natural History. More surprising are the findings that the *swaras* of some creatures do possess extraordinary powers, which are normally beyond the imagination of humans.

It is said that when Tānasen was undergoing a training of classical music under the illustrious guidance of *Swāmī Haridās*, he used to go for evening walks in a nearby forest. During one such stroll, he observed flashes of fire sparking on a dense tree at some distance. He was surprised to note that this fire was

not spreading around and that the sparking was periodic. He narrated this incident to his master. *Haridās* informed him that a rare species of birds lives on that tree during that particular season. The vibrations of the *swaras* of this bird resemble those of the *dīpaka rāga*. The natural voice of a nightingale produces a sweet song and the call of a sparrow hawk generates a heart throbbing sensation. The rhythmic voice of this bird generates more amazing effects – sparks of fire by the effect of *dīpaka rāga*. This incident had inspired Tānasen to learn the *rāga dīpaka* through a long-term dedicated practice with devotional sincerity and faith in the eternal power of pure music.

The above descriptions may appear to some people as exaggerations or imaginations. But those who know the science of sound and the sublime relationship of the vibrations of sonic energy with heat, electricity and subatomic vibrations would not be surprised, as they know well that – the vibrations of the specific rhythmic patterns of this energy-flow do have the power to affect the surrounding system.

Like the electromagnetic waves or the radio waves, the vibrations of music are pervaded everywhere in the atmosphere and are perceived at appropriate frequencies in suitable receiving regions. The subtle vibrations of *Śabda* carried through these waves affect all kinds of *animate* and *inanimate* creations in Nature. Therefore, it is natural to consider that the effect of music would be as intense on the botanical species as it is on the zoological ones.

Many examples of scientific illustrations of the effects of music on vegetation were presented in the earlier discussion. Some more may be added to this series. For instance, the experiments conducted in the agricultural laboratory at West Will, USA have shown a record increase in the productivity,

expansion and quality of the crops of different seasons under the effect of music. Dr. George Milestone, a British scientist, has demonstrated that music can cheer up even the tiny plants. Dr. Dorovo Ratledge of New York has used music therapy to cure a good number of trees; he has also saved the lives of many delicate plants that were infected and sick.

More than a decade ago, a group of scientists in Ontario, Canada had reported observing similar positive effects of music on the production of wheat; even the size and taste of the grain were found to be better under such effects. Dr. Yoshito Oshai, an agricultural scientist of Osaka, Japan had successfully improved the growth and quality of tomato, watermelon and beetroot in his garden with the help of music. Many Indian agricultural scientists and botanists have also demonstrated significant positive effects of music on plants and vegetation. The experiments conducted at the Annamalai University, Banaras Hindu University and the Govt. Agricultural Institute, Coimbtore are worth citing in this connection.

In the northern parts of India, the sowing of paddy seeds is traditionally accompanied by the songs of the ladies, who are especially trained in this sort of music. Now, even the scientific experiments have shown that if the records of these special musical tunes or such songs in melodious voices are played during and after the sowing of paddy, the crop becomes healthier. Similar positive effects of different *rāgas* are observed on the cultivation of rice, sugarcane, coconuts, beet roots and many other grains and vegetables. The experiments of Dr. Arthur Luca of Wisconsin have become popular because he has successfully used musical treatment to produce heavier flowers at faster rate. This has increased the scope and market

value of music in the western world, where flower farming is a hot business.

Dr. James Smith of London University has added a new direction in the area of research on the effects of music in the botanical world. He, in agreement with the renowned scientists like the renowned Dr. Jagadish Basu, opines that plants do have some kind of sentiments and are also equipped with the sensors to receive others' sentiments. He had carried out detailed study of the flora of different places. He has surveyed many gardens and the groups of plants growing elsewhere and scrupulously analyzed their conditions using large samples from different spots.

His results indicate that despite proper care the plants grow at a slower pace if they are planted in the places like cemeteries, butchery and hospitals. Even the already existing trees at such spots are found to be in unsatisfactory health as compared to their normal standards. The trees and plants, growing at the places – including the ill maintained 'gardens' near some houses, where the general ambience is happy and energetic, were found to be normal and healthy. His survey also shows that if the plants are cared with love, even ordinary soil and water work like most suitable fertilizers for them. On the contrary, even if an expert gardener is maintaining them in a depressed or bitter mood, their delicate leaves will get shrunk and eventually the whole plants will become lifeless if this negative environment surrounds them for long.

As music has an intimate relationship with humane emotions, it must also be associated with the sentiments of the plants and trees. This line of thinking has opened up further areas of research and enhanced the scope of music.

Interestingly, a large number of species in the Nature are also found to produce their own music. The New York metropolitan's museum had some time back purchased a book from Dr. M. Faridi of Afghanistan in about 18000 pounds. This ancient book entitled 'Santa Kuber' is written by an Indian Sufi saint Khwaza Fariruddin. This book contains rare information about the music generated by hundreds of creatures. The 362 pages of this book also contain compilations of some 'songs' (musical compositions) that are 'sung' (produced) by these species. It is said that only two more copies of this book are now available - one copy is reportedly available in Kashmir and the other in Varanasi, India.

The affluent in Japan like to possess the recordings of the musical sounds of a variety of birds and wild animals. The spectrum of this natural music is so enchanting that its records are often played there during some public ceremonies or in welcoming foreign dignitaries. It is said that a female frog sings in a peculiar voice at the time of delivery to reduce her pains and also to give extra strength to her newborn. It may not be possible to verify the truth of this statement on frogs, nevertheless, in case of human beings, music has indeed been found to be effective in reducing the labor pains and offering better health management to the child and the mother. The mothers who listen to good music during their pregnancy are found to deliver healthier babies. Foundation of the infant's overall development at physical, mental and emotional levels can also be supported by the power of music.

The tremendous effects of music on the entire animal kingdom the other forms of life in nature indicate that it has an intimate relationship with the *cetan* component of Nature. The folk tradition of singing *sohar* songs at the time of childbirth can

still be found alive in many parts of India. The philosophy behind this practice is that – even if the child is born with evil *samskāras* (intrinsic tendencies), the lively currents of the *swaras* in these songs will wane out the same. These implications are an outcome of the Indian philosophy and culture in which the classical music – *Śāstrīya Saṃgīta* was developed as a spiritual power for the realization and evolution of the vital source of *cetan* expressed in Nature.

Scientific experiments of today seem to have reaffirmed, with the help of the instruments like the supersonic radiometers etc, that the sublime power of sound and music emanated from *Śabda* and *Nāda* is indeed limitless. The experiments in modern laboratories have shown that music also generates certain kinds of electromagnetic waves, which affect the neuronal circuit in the brain. Music has already become an integral part of psychological treatments in the modern age. The spiritual front of music however, is largely left unattended by us. Understanding, practising and propagating the Indian classical music with renaissance of its original glory would be essential to elucidate its scope in the subtler domains of sub-conscious and unconscious mind.



## Some Notable Quotes on Music

**T**he *sāadhanā* of *swara vijñan* is indeed a *sāadhanā* of *Śabda Brahṁ* and *Nāda Brahṁ*. With its support a person can awaken the *satyam* (eternal truth), *śivam* (divine welfare) and *sundarṁ* (absolute beauty) qualities of the *Brahṁ* in his soul. This is how the *sāadhanā* of *shastric* music leads to unalloyed bliss. The scriptures on the *yoga sūtra* of music describe these effects of the *nāda-sāadhanā* in a great deal.

God Himself states in the holy *Gītā* that – '*Vedānām Sāmavedoasmi*' (I am *Sāmaveda* among the *vedas*).

*Sāmaveda* is regarded as the *Veda* of music. The patterns of *swaras* described here constitute the supreme form of classical music. That is why the Indian classical music in its original form (*śāstriya saṁgīta*) is regarded as divine music:

*Sāmavedaḥ Smṛataḥ Prītya Stasyāt Tasyāśucirdhwaniḥ |*

– *Manu Smṛiti* 4 | 124

*Rudraḥ Sāmmayoanteca Tasyāttasyaśucirdhwaniḥ |*

– *Markaṇḍ. Pu.* 102 | 109

The music developed by the *rishis* had originated from the *sāmaveda*. It was designed to vibrate the *viñā* of the *swaras*

subtly vibrating in the human body. Practice of music was a *sāadhanā* of devotion and spiritual elevation in the ancient era. The sacred flow of divine music emanated from the *sāmaveda* had manifested itself in the *swaras* of divine *rishi* Nārada. The *Sāmagāna* of *mantras* by the *rishis* had continued showering its nectar of bliss on human life for thousands of years through the music of these great *sādhaks*. This flow of divine music continued to show its presence on the earth till the saintly musicians like Swami Haridāsa and their ardent disciples like Baiju Bāvarā and Tānasena maintained the disciplines essential for its acquisition and practice. Even today, the world would not have been deprived of the sacred influence of music, had the expert *sādhaks* of the *śāstriya saṃgīta* been given substantial support and honor by the society in the modern times too.

It is unfortunate to see that now music is mostly a subject matter of entertaining art alone and its performance has largely become professional. Teaching music has by and large become a source of earning and the 'disciples' learn it mainly as a hobby or as part of making a career in this profession. The decline of music began since the time it became a source of entertainment, luxurious pleasure and got influenced by the erogenous desires of a few. This was indeed pathetic like a decline of a revered master into a servant or devaluation of the human instincts into the animal ones.

Because of the hypnotizing power of music on one's emotions, the *rishis* had imposed certain disciplines on its practice and had cautioned against its misuse. Lower level of music and associated arts is strongly criticized in the *ancient Indian texts*:

*Kāmaṃ Krodhe Ca Lobhaṃ Ca Nartanaṃ Gīta Vādanām |*

- Manu. Sm. 2 | 178



*Na Nṛatyedathavā Gāyetra Vādi-Trāṇḷi Vādayet |*

– Manu. Sm. 4 | 64

The above quotes imply that -- (erotic) songs and art are disdainful like the evils of unchecked *kāma* (carnal lust), *krodha* (anger) and *lobha* (avarice) and should be avoided by the people of good conduct.

The following lines abuse those who make use of music for selfish means and describe them as having the *substandard* character even if they have many other 'elite' qualities.

*Kuśīla Voavakīrṇī Ca Vṛaṣalī Pati Raveca |*

*Etān Vigarhitācā rā nā Paṁktiyān Dvijādhamān |*

*Dwijāti Pravaro Vidwānubhayatra Vivarjayet | |*

– Manu. Sm. 3 | 157, 167

*Stena Gāyan Yoścānnaṁ Taksṇo Vārdhuṣikasya Ca |*

– Manu. Sm. 4 | 210

*Preṣyan Vādhuṣikānścaiva Viprān Śudra Vadācaret |*

– Manu. Sm. 8 | 102

*Brāhmarṇo Naiva Gāyetra Nṛatyet |*

– Gopath. 2 | 21

The Manu Smṛati further defines in the following *Śloka*s – dancing, singing and playing a lower level music as 'Tauryatrika' and describes them as addictions which generate erotic desires:

*Tauryatrikam Vṛathātyāca Kāmajo Daśako Gaṇaḥ |*

– Manu. Sm. 7 | 47

*Vyasanāni Durantāni Prayatnena Vivarjayet |*

– Manu. Sm. 7 | 45

Moreover, the following *śloka* describes the commercial musicians as those whose statements as witness in the king's council cannot be relied upon:

*Na Sākṣī Nṛpatiḥ Kā ryo Na Kā rūka Suśīlavau |*

–Manu. Sm. 8 | 65

The reason for such disbelief is described in another *śloka* as – such (commercial) musicians can, because of their greed for money and luxuries, sell their integrity and are therefore not authentic. Similar views are expressed in the Yagyawalka smṛati (3 | 170), Nārada Smṛati (1 | 158), Padma Purāṇa (Pātālahrṇḍa – 9 | 58) and Bhaviṣyapurāṇa (1 | 4 | 146) etc.

In a *śloka* of Padma Purāṇa (Bhumikhrṇḍa – 75 | 30) Yayāti is described as a virtuous king whose intense interest in entertainment and erotic music (and dances) had led to a severe decline of his moral values. Similar is implied in the following:

*Kāmasya Gīta Lā syena, Hāsyena, Lalitena Ca |*

*Mohito Rā ja Rājendraḥ Kāma Samsakta Mānasaḥ |*

– Pad. Pu. Bhu. Kh. 77 | 1

**Meaning:** King Yayāti's mind was hypnotized by his involvement in sensual music, dances and songs and related jokes as part of his lavish entertainment. The dignity of his character was lowered thereby and so he lost all his glory.

Srimad Bhāgawad advises that a saint must keep away from the vicious circle of learning or listening to erogenous, substandard music and songs to avoid the tragic end (of his own moral values) like that of a trapped deer:

*Grāmyagītaṁ Na Śruṇuyād Yatirvancaraḥ Kwatic Śikṣet |*

*Hariṇād Vadhdān Śṛagayo Gīta Mohitaṁ |*

– Bhagawad 11 – 8 | 17

The successive *ślokas* of this scripture cite the example of Śṛaṅgīṛiṣi as evidence in this regard. Bāṇabhatta has also stated one example of an opposite kind in Kādambari. He describes of Chandrapīḍa as an ideal state because – '*Aṅkānām Gīta Vyasanīm*' – except the 'animals', no body is addicted here to (indecent) musical entertainment.

The following quotes from the Vālmikiya Rāmāyaṇ mention of 'the addiction to music and dances as luxurious entertainment' as one of the many misdeeds of the queens of Rāvaṇa.

*Nṛatyā Vādinna Kuśalā Rākśendra Bhujāṅkgāḥ |*

– Val. Rama. (Sund. Kand) 10 | 32

*Kācid Vī ṇām Pariṣvajya Prasuptā Samprakāśite |*

– Val. Rama. (Sund. Kand) 10 | 37

*Anyā Kakśa Gate Naiva Baṁgu Ke Nāsīte Kśaṇā |*

*Viprṁcī m Parigahyānyām Niyatā Nṛatyā Śālinī | |*

– Val. Rama. (Sund. Kand) 10 | 38

The above sentences describe the giant women of Rāvaṇa's palace as always busy in erotic singing and dancing. They used to roam around and even sleep with their musical instruments.

The same scripture describes just the opposite atmosphere in the ideal kingdom of Ayodhya. In the *śloka* number 100-168 (Vā. Rā. Ayodh. Kaṇḍa) Lord Rama is cited as preaching Bharata to keep away from substandard songs and music.

Many other scriptures also warn about the harms of maligned music and at the same time highlight the virtues of ethical value-based music. Some such excerpts and sayings of the great personalities are given below:

*Gāyaka Radakaiścānathyaiḥ Saṃgīta Kāyaḥ*

– Kautilya Arthśāstra 8 | 4

(Implying that – erotic songs and music are the source of decline and devastation.)

*Naṭa Nartakī Viṭa Veśyākunṛapeṣva Nṛatāḍambaram Vaktavyaḥ*

– Vārhaspatya Arthśāstra 1 | 54

In the above *śloka* *Acharya Vṛahaspati* has criticized commercial and perverted musicians and singers by equating them to prostitutes and traitors.

The Bharat Nātaya Śāstra describes total music as – '*Gītaṃ Vādyam Nartanam Ca Trayam Saṃgīta Mucyate*' – a combination of singing, dancing and playing (musical) instruments.

This scripture also cites (in the śloka no. 36 | 34) that the *rishis* had cursed erotic music as a maligned form that would be discarded as disdainful –

*Nirbrahmārṇo Nirābhūtaḥ Śudrā Cā ro Bhaviṣyati |*

The Kāla Vilāsagranth written by Kṣemendra states –

*Arho Nāma Janānām Jīvitamakhila Kriya Kalāpasya |*

*Tam Saṃharanti Dhūrtā Chagala Galā Gāyakā Loke || 1 ||*

*Niḥśeṣam Kamalā Kara Koṣam Agdhwāpi Kumudamāsvādyā |*

*Kṣīṇā Gāyana Bṛmgā Matmgā Pranyatām Yānti || 2 ||*

**Meaning:** Wealth is a necessity of life but the commercial singers, musicians and dancers snatch it away easily as if it was hanging like a bell in the neck of a goat. These people (by the hypnotic power of their 'entertaining music') can even 'empty' the treasure of Lakṣmī – the Goddess of prosperity. Such 'artists' of music always remain dissatisfied like a humming bee does despite sucking the juice of flowers; they always search for innocent or crazy people and make friendship with them so that they could be easily made addicted to the dirty music.

The Chārucharya Grantha also criticizes the addiction to luxuries and the music, which stimulates animal instincts. Such a hobby is described here as pernicious and adverse like an enemy's company –

*Na Gīta Vādyāmi Ritirvilāsa Vyasanī Bhaveti |*  
*Viñā Vinoda Vyasanī Vatsesaḥ Śatruṇā Hataḥ | |*

Many intellectuals of the later years had gone by the literal word-meanings and had misinterpreted many such quotes (excerpts) from the ancient scriptures without bothering to go into detailed context- dependent analysis. Such misinterpretations had led to the wrong impressions that practicing or listening to any kind of music should be discarded. As a result, the popularity of good, classical and pure music also suffered a set back for many generations.

This fact should be recalled again and again by every thoughtful mind that the ancient scriptures (esp. those written in the rhetoric style for the masses) have only criticized the misuse of the power of *swaras*. They have guided the human society to avoid luxurious and commercial use of music and warned against the enormous harms of dirty songs, sensual dances, carnally exciting music, and musical compositions associated with such modes of entertainment.

The pure, divine and creative music has always been referred by the saints and dedicated scholars of all ages as – the support of the soul and the source of ecstatic enlightenment of the emotions in all circumstances. For instance, note the following quotes [translations of texts in the Hindi articles]:

**"Music cleans up the smut of the mind "**

*– Oveir*



**"Look deeper into the inner centers of every element. You will find an ecstatic latent music emerging from there"**

*– Kārlāila.*



**"Music eliminates the anguish of the soul"**

*– Mahatma Gandhi.*



**"Music contains the magical power of converting even a hard (cruel) heart into a soft (compassionate) one..."**

*– James Watson.*



**"Music is the universal language of mankind"**

*– Longe Fellow.*



**"God follows music"**

*– Shaikh Sādī*



**"Music is a medicine of a broken heart"**

*– A. Hunt*



**"The world talks to me through pictures,  
my soul replies to it in music"**

*– Ravindra Nath Tagore.*

Arts associated with human psychology are like double-sided swords, which from one side could kill the evils but might destroy the virtues from the other. Considering the above viewpoints, we must be very careful in selecting the right kind of music and practise or listen to it only for morally refined purposes.

Some memories of Mahatma Gandhi (Bapu) are highlighted in a diary of Manu Bain. At one place, it cites Bapu as saying that he respects the art of dancing and he likes music; but he would certainly like to ban those songs, dances and musical instruments and tunes which malign the mind and character of the people.

From the same knife one can cut vegetables or use it to wound somebody. Like any other stream of power, the power of *nāda* contained in music could be oriented in different ways for different purposes. Drinking milk is good for our health but when a bee falls in a cup of milk, the same milk no longer remains drinkable. Similarly, music is excellent for maintaining our spiritual, psychological and physical health but only till it is pure and linked with noble aims. If it stimulates evil tendencies and adversely attacks the intelligence, reasoning and moral values, it should be discarded as being 'poisonous'. Music has immense power and great potential to govern the human psychology. Today, the world needs to replace the noisy, superficial, (substandard) filmy and obscene music by refined, melodious and pure classical music in order to revive the glorious past of humane dignity through the implicit impact of *nāda* in devotional music.



## New Experiments in Mantra-Chanting and Music Therapy

**I**t is a common observation that bed-ridden or hospitalized patients have to spend a lot of time without any company. Friends and relatives may stay back during emergency but otherwise they can spend only few hours a day with the patient because of their other commitments and the constraints of hospital rules. The nurses and other staff also visit only at fixed time intervals for specific tasks, one cannot expect them to be with the patient all the time. In view of the loss of energy in chitchatting and the possibility of disturbing other more serious patients, it is generally advisable for every patient to keep quite as far as possible. Thus, most often the in-door patients face a genuine problem of time-pass.

Sitting or lying down alone on the bed often induces adverse feelings and depression in the patients as they keep thinking about their disease and the problems caused thereafter. In such situations, reading books or listening the recorded cassettes of enchanting music seem to be the best solutions as they offer an entertaining and inspiring company



of one's choice as and when required. While reading books may not always be possible for all the patients because of the problems of – illiteracy, neck or shoulder pain, straining of eyes, non-availability of proper light etc, listening to prerecorded music is free from such constraints. It can be enjoyed in the most relaxed posture. It offers instant diversion of mind to the ailing person in a manner similar to what a new toy does to a crying child.

Interestingly the entertaining company of music also serves therapeutic purposes in the background. While the other therapies have a problem of mutual compatibility, music therapy does not cause any suppressive effect on any other mode of treatment. For instance, Allopathy and Homeopathy often annul the effects of different medicines and therefore, cannot be tried out simultaneously on the same patient. But music therapy can very well be used along with each of these prominent modes of treatment and also with any other therapy.

As stated earlier, musical currents vibrate the neuronal circuits and enhance the flow of vital energy in general. It does not have any risk of adverse side-effects like the antibiotics. It offers positive support on the psychological front too provided its tuning and pitch remain within the limits of melody and do not become noisy or disturbing instead. The filmy music or the commercially produced, so-called popular cassettes often consist of exciting lyrics that dominate over the musical compositions. Because of the TV and cheap cinemas (e.g. on DVDs), a large section of the society – including the lower economic classes and the illiterate ones, can afford to watch movies and learn such songs. Even children remember them easily and their subconscious minds also assimilate the visual images of the associated scenes of the film.

When one listens to such a music, he may get a diversion of mind and delight but the lyrics and quality of music would induce the concurrent emotional currents in him and give a short term blow and excitement or amorous and erotic feelings or a sense of heart breaking gloom or a sorrow of missing some one, etc, as per the motif and the tempo of the song. Such kind of music does not really give any therapeutic application and might at times turn out to be unhealthy in terms of psychological aberrations.

Assimilation of the maligned effects (of erogenous songs) in the memory also has corresponding effects on the subconscious mind and therefore influences one's intrinsic character too. Occurrence of crimes and erotic mentality is expanding like an epidemic these days; role of ribald songs and exciting amorous music cannot be neglected in this context. The tools like loudspeakers, gramophones, cassette players, radio and TVs etc have accelerated the rapid spreading of these infections. The maligning of mental domain by such effects is also frequently reflected in the occurrence of psychological disorders that give rise to epilepsy, hysteria, tension, insomnia, continuous headache and impotency etc. On the physical side, the associated disorders often become the causes of urinal problems, diabetes, hypertension and arrhythmia etc.

It should be remembered that specific sonic effects of the different combinations of *swaras* are the key factors in music therapy. The type and dosages of medicines are prescribed in any therapeutic system according to the condition of the patient. For this purpose, a clinical checkup, the pathological tests of the blood, urea, stools etc and the analysis of the internal organs by X-rays, Sonography etc and that of the neuro-

physiological functions with the help of EMG, ECG, EEG etc are often carried out in Allopathic system. Other kinds of established therapies also have different principles and techniques of examining a patient before he is given any treatment. A therapy would not be effective, rather, it might risk untoward consequences, if prescribed without thorough consideration of patient's physical and mental state.

## **Research in Music Therapy – Hints from the Vedas:**

For a scientifically perfect and effective use of music therapy, it would be necessary to carry out research into the different types of sonic waves generated by specific compositions of music and the effect of their vibrations on the nervous system and physiological functioning of the human and animal subjects. Decipheration of the ancient science of music, analysis of its different domains and sub-domains and classification according to the *swara* and *nāda* patterns etc – as cited in the Indian scriptures, would alone be so vast that its compilation would expand across several volumes of books and journals. Here, we can only hint about the potential and scope of music therapy and lay out a framework under which this unique science could be studied constructively in the years to come.

As the roots of music had originated in India and its full-grown tree had blossomed on the soil of the Indian Culture, it is natural to expect that the ancient Indian scriptures would be the richest source of knowledge on this classical subject. The *Vedas*, especially the *Sāmaveda* is regarded as the first and the most complete treatise on music, in its purest form. The *Atharvaveda* is often referred as the foundational scripture of the science of Ayurveda. Its *mantras* are said to contain coded formulae about

the control of the functioning of the human body and mind by natural methods and elements.

Most significant in the present context is the fact that the hymns (*mantras*) of the Atharvaveda were designed according to the principles of music therapy. Precise chanting of the original hymns according to the specific patterns of *chanting* (*sāmagāna*) – – as implied in the *Sāmaveda*, would offer significant positive effects as though the remedy or the medicines recommended in the associated *mantra* were applied. The chanting of these *mantras* in special *yajñas* (*yagyas*) is supposed to generate therapeutic, environmental and other applications of music at the subtle as well as macro levels.

Collection of all the *Vedic Mantras* in original form and decipheration of their specific chanting (*gāna*) patterns from the now available scriptures would be rather difficult because none of the ancient scriptures are now accessible in the original and complete form. Decoding of the original script wherever available – appears to be an impossible task, given that nobody would really recognize those symbols and accurately interpret their implications today. In this context, it would be logical for a meaningful and systematic research to concentrate on those *mantras*, which have been consistently studied by the scholars of different ages, as we might expect greater availability of perspicuous literature in this case. The *Gāyatrī Mantra* – defined as the root of all the *Vedic Mantras*, happens to be a prominent exemplar in this regard. The immense potential of this *mantra* has been experienced by almost everyone who is spiritually awakened and has practised the *sāadhanā* of this *mantra*.

The Brahm Varchas research center and Dev Sanskriti University (DSVV) in Haridwar, India have taken up research on this *mantra* under the auspices of the parent institute

Shantikunj, Haridwar. Along with several other projects on the study and practice of the *Gayatri (Gāyatrī) Mantra*, several experiments are conducted to study the effects of chanting this *mantra* in different classical *rāgas*. Quite a few systematic *rāgas* according to the *sāma* principles have been designed; sequential tests on *sādhakas* have shown significant positive effects.

The psychometry labs of these institutions are also engaged in studying the effects of classical music based *Nāda-Yoga* in stress-management, with the help of integrated experiments on multi channel polygraphs and biofeedback techniques.

The audio-visual studio of Shantikunj has developed different kinds of cassettes consisting of musical compositions suitable for – (i) maintaining physical health in general; (ii) increasing mental concentration and sharpness of mind and clarity of thoughts; (iii) inspiring pious sentiments and moral elevation. Development of special musical records for therapeutic use in different diseases and those useful for healthy vegetation and agricultural applications is also under progress.

## **Significance of Mantra-Chanting with Fire Ritual:**

Experiments on the *Gayatri Mantra* and *Yagya* are the unique features of the research work at Brahm Varchas. This is a pioneering effort to set novel directions of research on sonic effects. Sound, heat and light are the basic energies immanent in nature. An excellent combination of these energy waves is used in a *yagya*. The cyclic renunciation and chanting of *Gayatri Mantra* has majestic impact because of the unique emission and superimposition of the sound waves of this *mantra*. As per the interpretations of ancient texts, the sound waves generated by

the *japa* (or *sāmagāna*) of this *mantra* are supposed to move towards its 'astral center' – *Savitā*, in a spiral fashion after colliding with the flames of the sacrificial fire of *yagya* and being energized by the electrons of the substances volatilized / sublimated in this fire.

Effect of *mantra chanting* in specific musical tunes during a *yagya* assumes greater significance, as according to the principles of physics, the collision of the *swaras* with the thinnest screen (of the flames of *yagya*) would enhance the speed of propagation of the sonic vibrations of the *swaras* in *gigantic proportions*. The presence of early morning sunlight multiplies these effects by triggering specific photochemical effects on the fumigating substances and also supplements the thermal effects of the *yagya* in the surrounding atmosphere. These coherent effects of sound, heat and light also result in excellent conditioning of the body and mind of the persons performing *yagya*. The enhanced impact of music induces most suitable effects after such a conditioning.

In the experiments on music therapy carried out in the *yagya-therapy* and sound therapy (*mantra cikitsā*) labs, the subjects are asked either to perform the *yagya* or sit quietly in the *yagyaśālā*. Analysis of their physical, pathological, physiological (including cardiovascular and neurological) and psychological conditions are carried out before and after participation in such experiments. Significant results have been obtained in increasing the vitality and immunity of the subjects and controlling their psychosomatic disorders (if any) by this special therapy of music with fire ritual. [Summary of research results and list of papers is available in the last of the book titled "Applied Science of Yagya for Health and Environment"; ISBN:81-8255-042-4]

Brahm Varchas centre, DSVV and Shantikunj have also brought out some musical records of the *Gāyatrī Mantra* in several *rāgas* of the Indian classical music. Effects of collective singing – especially of the devotional songs are also studied here on a large population of different psychological and social backgrounds. Suitable compositions of instrumental music are identified for specific applications. The *Śāstras* on music specify that all the *swaras* have emanated from the eternal sound of *Om̐kāra*. In view of the prevalent importance of the sound of *Om̐kāra*, further research would be focused in these centers at the gamut of musical power currents that could be generated by singing *Om̐kāra* in different *rāgas*.



## Social Uplift with the Help of Music

**T**om Dir, Nadir Dir Dir Tom, Ta Dir Na..... – the currents of her perfect *swaras* had educed the ambience by the enchanting warmth of music.

Her melodious voice was flowing in the air. Sometimes her voice would appear to be rising like the high tide of an ocean and would soften the next moment like a petal of flower swinging with a cool breeze. People sitting around were fully engrossed. This divinely soothing music seemed to have purified their minds and even if there would have been a place for any dissenting thought or doubt, that was also being instantly cleared by the inspiring comments of the singer which she was making in between her successive musical performances.

“Life is like a musical instrument which needs to be tuned harmonically and adjusted according to the rhythms of the internal voice. Life has no pleasure without sharing the responsibilities and co-operating with the fellow beings. If a shattered and misguided life could be shaped up and activated gracefully and the body, mind and soul could be conjugated



coherently like the *manda tāla* and *madhyama saptaka* of *shastric* music, then its existence would become creative and pleasant like the melodious composition of the natural *swaras* of music....” – she was explaining just after completing her performance, while keeping her musical instrument aside.

The atmosphere was still! Her blessed voice seemed to have calmed the audience from within. Quite a few among those were the people who had listened to many expert musicians in the royal concerts arranged for entertaining the kings and their families. But there was a great difference between that music and the music they had enjoyed today. The other kind of music used to be pleasant and exciting but today's music was blissful and had generated immense peace of mind and heart. There was a flavor of luxury, lust and erotic sensation in the other music while today's music had purified the mind and inspired auspicious thoughts and emotions. What a contradiction! Can music be so different in its two forms? Many of those who used to regard music as a mere means of luxurious entertainment had now come out of such illusive impressions. The young, serene lady in saffron standing in front of them was appearing like an idol because of her graceful beauty and the glow of asceticity on her face. She surely was a great *sādhaka* of music.

Somebody questioned here- “Madam, I wanted to ask..., why did you choose this devotional music instead of the music of the royal traditions....?” She replied spontaneously – “Oh! I see your point. Listen! It is not the music, which is to be blamed in the other tradition rather, it is the way in which it has been misused as a medium of sheer entertainment that needs to be rectified there. Music is like a consciousness-driven carrier of emotions. With the help of the powerful medium of music, one can tie the life of the masses by the bonds of erotic desires and

obnoxious luxuries or use it for social awareness and uplifting depending upon what has been the quality of the emotions behind its composition and performance.”

That music could be a medium of social awareness – was quite new information for some of the audience although they had experienced such a power of music just a few minutes ago, during her performance of the devotional music. Responding to their curiosity, she continued – “It is not just the movement of the vocal cord or the dancing of the fingers on the wires of the instrument which generates music. Music becomes lively only by the *prāṇa* of the singer or musician. The status of music today has become like that of a slave; it appears to be confined for the dull, erotic and lusty minds. The Goddess *Śārada* – the deity of *swaras*, is at pains by observing this downfall. The great *rishis* are shocked to see how the knowledge of *swaras* founded by them is being distorted and misused by the animal instincts of humans today [...]” – she was in tears. People could feel her agony.

In her emotionally charged but stable voice, she declared – “But, such a great power of Nature cannot remain underutilized for long. Awakened souls will again come forward to channelize this splendid power and revive its glorious status. This power would awaken the humane sentiments and ideals in the masses. I have devoted my life for this cause and I am confident that God Himself will now appear in many different forms to fulfill this task of elevating the status of music up to its original heights. Much before the beginning of the third millennium, this world will witness the great change. Come on, you all! Realize the creative potential of music and use it for inspiring the sentiments of love and compassion and piety of thoughts and deeds on this earth [...]”

Her words, emanated from the depths of her inner self, had indeed awakened the entire society in that age. All the towns and villages, every house was virtually vibrated by the melody of her devotional music. This great soul, the immortal singer was – saint *Meera Bai*, a queen, who had left all the comforts of the palace for the noble cause of social elevation through her *sādhanā* of music.

Renowned scholar of music, Mr. Pablo Kassalka used to say that music could be the principal savior for the dying world” Martin Luther King viewed music as among the greatest boons bestowed by the Almighty on the human society. Inspired by such observations on the power of music, Mr. Shinichi Suzuki of Japan had decided to dedicate his life for the grace of divine music since he was a young student. He indeed devoted himself to see his dreams materialize in a righteous manner.

Suzuki tried hard to find out the ways by which the practice and propagation of music will not be confined to a few professionals and commercial entertainers, rather, it could also become an art of living a happy and successful life. He always used to think how music could be linked with the human life so that people's interaction with it need not be limited to the radios or gramophones. Rather, they could experience its live power in their emotions and feel the vibrations of the natural flow of *swaras* in themselves. He was of the opinion that music should be an integral part of every one's life. Like bathing, sleeping, eating etc, one must practice music every day even if one has a harsh or unstable voice.

Suzuki had developed a systematic and simple teaching method by which music could be taught in every home. He had devised techniques by which a mother and her children could teach and learn singing by collective efforts. He had also

designed practically doable syllabus for adept teaching of music in schools. He inspired affluent people to sponsor grants for opening of many schools of music and factories for manufacturing of musical instruments at reasonable prices, affordable by the common men. The opening of the world's largest violin factory in the Noyoga City and persistence of its highly successful profile – is attributed to the efforts of Shinichi Suzuki.

In order to strengthen his noble mission, Suzuki had chosen a life partner who would be a compatible companion in his service of music. His wife Baltraude was an ideal match for him. She was an expert in playing piano. Their “Talent Education Institute” was established soon after their marriage. Baltraude had fully devoted herself to the service of this institute. This institute has by now produced about 1500 musicians of high repute. According to Suzuki – “Pure music awakens the compassion, sense of discipline, tolerance and soft sentiments.... Music plays a great role in refining the benevolence of heart (emotional center)” His wife used to describe the motto of their life as – “We want to see that every child of Japan has a heart full of love and ideal sentiments of humane dignity”

Dedication of the Hoy couple in America and the establishment of their social organization R-for-R (described in earlier sections) have also set similar shining example in the modern history of music.

In the rhetoric presentations used in the *Purāṇas*, heaven is described to be extremely beautiful, cozy and exotic place – an absolute dreamland, where the *apsarās* (fairies) sing and dance to offer immense joy and entertainment beyond the limits of imagination of the mortal beings. Such descriptions

imply the paramount role of music and associated arts in generating heavenly pleasure. The mention of its eternal presence in the divine land (heaven) indicates that *Nāda* and *Śabda* are eternally present with every manifestation of the *Brahm*. The ancient Indian scriptures also describe that the *apsarās* and the deities vibrate the heaven with the lively currents of the *nāda* of their music. Some scriptures mention in the context of the divine *Vedic* era that the *gandharvas* and *kinnaras* used to perform elegant music on the earth during that time. All the Gods in the Hindu religion and mythology are described as having eternal association with music. The idols of these divine powers are also depicted as holding some musical instruments.

In view of the scriptural implications and noting the importance of *nāda yoga* among the spiritual *sāadhanās* devised by the *riṣhis*, there remains no doubt in accepting the divine origin of music as a creative manifestation of the *Nāda Brahm*. Music was practised in its original form in the prehistoric times of yore. Its pious practices continued, though at a smaller scale, even in the latter eras until several centuries ago.

### **Adulteration of Music with Cultural Devolution:**

The adulteration of cultural values and the untoward developments of the medieval era combined by the influence of the mighty rulers on its use as a means of tender entertainment almost ruined the divine and spiritual basis of the ancient musical schools. It was since then that music became an art for sheer entertainment. It is said that the influence of the over luxurious lifestyle of the Moghal (Muslim) emperors had even infected the British in India so much that it resulted in the latter's downfall in the later years.

In this dark period of Indian history, the emperors and the rich and mighty officers of the war-trodden states used to seek 'solace and mental peace' in the company of wine and woman. All the wealth plunged from the defeated countries was also spent lavishly by the conquerors on such substandard means. Their lust for sensual pleasure had given rise to the murky culture in which music was largely practised and performed to accompany sensuous dances and erotic songs of the prostitutes. Even many talented musicians were 'captured' by such kings to increase the royal possession of 'art and culture' those days. The service of music by these talents had become a synonym of the service of the king, the ruler. This is how the rich knowledge of ancient classical music got shrouded in the mist of adulteration. Most of those, who knew it and could have handed over its treasure to the future generations, had to either hide it in the shields of protection sacrificing their own identity and diverting their expertise towards creating and practising music for the entertainment and sycophancy of their rulers.

However, as the black spots of an eclipse cannot hide the light of the sun and the moon forever, cyclones cannot maintain their stormy speed and blowing wind for too long, similarly, no adversity, no period of misery can continue to stay far too long. Maligning of the glory of music during the dark phase of cultural decline could not uproot its divine linkage with the human consciousness. Devotional music, sincere practice of music as a *sāadhanā*, though at a very limited scale, continued to exist because of the dedicated endeavors of some great souls during this epoch of history.

Towards the end of the medieval era, the history of India witnessed the incarnation of many saintly souls for emancipating the oppressed Indian society. The great saintly

poets and social reformers like Chaitanya Mahaprabhu, Meera, Raidas, Dadu, Tulasi, Kabir, Tukaram and Namadeva, etc had used devotional music as the sole medium for generating social awareness and enlightening the hearts and minds of the masses. Music, because of its ability to penetrate the inner core of emotions, became the source of social and cultural revolutions at that time. The 'army' of such saints used the powerful 'weapon' of music to conquer the maligned trends of the perverted social and psychological system. The founder fathers of the Sikh cult had also used devotional music as the paramount source for awakening the sentiments of sacrifice and responsibility for the noble goals of human welfare.

The music of the *vīṇā* of Nārada had successfully transmuted the dimensions of the lives of Pāravati, Vālmikī, Dhruva and Prahlāda from that of an ordinary mortal being to that of a revered character of all ages. The devotional folk songs of the saints like Meera and Kabir had changed the trends of the society towards the end of the medieval times and had sowed the seed of an ideal value system in the cultural developments. The recitation of inspiring poems by Chand Bardai had provided instant courage and direction to the blind king Prathviraj Chauhan; this triggered the king to perfectly target and kill the enemy during the last moments of his own life in the captivity of the enemy – Mohammad Gauri. Shiva Vani had similarly inspired the great Maratha king Shivaji to fight against death. These and many such glorious chapters in the modern history of India have set some immortal examples of how the constructive effects of music (with additional support of devotional and inspiring songs) can help awaken the masses and uplift their lives.

## Reviving The Social Value of Music – Initiatives of *Gayatri Pariwar*.

Realizing the potential of music, Shantikunj has given it an important place in its *mass-awakening* and character-building mission. Daily practice of good music is an integral part of its Self-Reliant Training and Education programme. Music is also taught under the special training programmes organized here for the social workers. The volunteers desirous of working in the rural areas and for educating the illiterate masses are taught to convey the messages of social awareness by means of songs with little explanation in prose. They are also taught devotional and inspiring songs and given practice to sing such songs in chorus – as *kīrtans*, with the company of the traditional musical instruments like *dholak*, *daphalī*, *majīrā* and harmonium etc. So that they could make their tutorials more interesting for the villagers for whom learning of formal subjects often becomes a bit boring. Participation in *kīrtans* before and after a short lecture would help energize and enthuse such students (especially the adults). The methods of teaching with audio-visual aids are also taught in the training programmes of Shantikunj.

The monthly magazine titled '*Yuga Nirmāṇa Yojnanā*' published by the mission's branch at Mathura deals with the topics relevant for educating the masses in India – especially those living in the countryside or in the rural and tribal areas. Inspiring storybooks for children and biographies of great personalities are also published for this purpose of creative education. Special records and cassettes of music are produced here so that the trainees could go back to their centers with proper kits and start educating the people free of cost. The philosophy of this education programme and structuring of the



courses are focused at giving fast and timely solution to the socio-economic backwardness of the Indian people at large. Emphasis is laid here on uplifting the status of women and bringing them into the main stream, where they could participate, on equal footing, with the men in the development of an alert and progressive society.

The training of music is so systematically designed in these educative programmes that even the beginners could be trained in vocal or instrumental music on a limited metric scale (of musical notes) in just two to three months' period. This enables the latter sing or play at least one or two tunes (*rāgas* and *tālas*) with ease. This type of short-term intensive training is effective like the construction of bridges by the engineers of the army in very short duration in the wake of a war.

Mass education and social awareness programmes need to be implemented in India on a war-footing today considering the large number of the illiterates and the scarcity of time and dedicated voluntary organization for this purpose. A good number of volunteers from the rural and backward areas of India have also been trained at Shantikunj since past one decade. It is interesting to note that the special structure and methodology of the training programme and the inspiring environment of this institute together with the sincerity of the students yield excellent results in short time. Most of these students learn to perform *kīrtana* and narrate the preaching episodes of the *Rāmcharita Mānasa* and other educating epics (written in verse) just in about a month's time. They effectively convey the message of the story and the devotional songs (*bhajans*) with good support of music. The trainees who have time and who are found to have above-average talents in a

particular faculty of music or oration are given higher level training in the corresponding discipline.

Anybody desirous of working on part time or full time basis for the noble cause of social uplifting and welfare is welcome to attend these training programmes after taking permission from the In-charge, Yug Shilpi Sāadhanā Satra, Shantikunj, Hardwar: 249411, India. (email: shantikunj@awgp.org). The courses usually go on throughout the year – a new batch commencing on the 1st of every month. About 200 trainees are accommodated in each batch for 1 to 3 months training. No fee is charged for the courses; free lodging and boarding is available in the premises of Shantikunj. There is no barrier of cast, creed, gender, religion, nationality, socio-economic class, etc. Maturity of thoughts, integrity of character and sincerity towards the motive are the major qualifying criteria.

It should be noted that the training in music is not given in this institute for the purpose of entertainment or fulfilling one's hobby. People are not supposed to go there for mere time-pass or touring. One has to follow the disciplines of the training programmes and remember that learning music in Shantikunj is like a *sāadhanā*, like an ascetic endeavor. A trainee of such a programme should have respect for the serenity of music and dedication towards selfless service of the human society. This would enable him make use of his talents in most creative and fruitful manner.

In order to propagate the mission of social welfare, teams of experts are also sent from Shantikunj to its different local centers of the All World Gayatri Pariwar ([www.awgp.org](http://www.awgp.org)) situated in different parts of India and abroad on special occasions of large- scale *yagya* as or the auspicious nine days of *Navarātra*. etc. Different *Samskāras* – including ideal

marriages without any dowry or barriers of cast etc; thread ceremonies; commencement of education, etc, are also organized at these centers without charging any fee as part of cultural awareness, removing superstitions and highlighting the scientific and logical basis of the Indian Philosophy. Here again, music plays a key role in generating interest and inspiring the emotions of the participants to advance their inner strength towards struggle against the social and personal evils and come forward to participate in the constructive programmes of development of the self and the society.

The centers located in the cities are especially advised to inspire the people in contact to not to celebrate the birthdays or the wedding days with extravagant parties accompanied by filmy or fast-beat (e.g. pop or jazz type) music. Such important occasions of one's life are like milestones in the journey of the soul and should therefore be regarded as divine ceremonies and celebrated with corresponding grace. Arranging a small programme of devotional songs along with a *havan* or *dipa yagya* as a simple ceremony would be enjoyable, inexpensive and meaningful in terms of the healthy effects on the body and enlightening impressions on the mind and the hidden core of sentiments.



## Superior Applications of Music

**T**he study of ancient scriptures reveals that the *Śāstrīya Saṃgīta* (Indian Classical Music emanated from the Vedic texts) was developed not only as a branch of art and cultural knowledge, rather, it was devised as a medium for expressing and applying the eternal power of the *Nāda Brahmā*. The treatises on the history of music in India indicate that the great tradition of ancient music had survived for many-many years in more or less its original form. The supernatural power of music used in -- kindling the lamps by singing the *dīpaka rāga* or enforce rainfall at will by *rāga megha malhāhar*; causing the flowers to blossom without season or making the stones melt by singing some other special *rāgas* -- was demonstrated by the great musicians like Tānasen and Baiju Bāvarā up till a few hundred years ago. However, due to the disturbances and cultural disruptions caused by the British rule & because of the non-availability of adequate means and support for propagating its knowledge in the common public, the teaching and practice of pure classical music got confined to a limited domain of a handful of devoted musicians in the later years.

In earlier days, because of the difficulties in commuting and communicating from a long distance, only limited groups of people who could reach a musician or attend his concerts were able to gain from his talent of music. Even the trends of the folk music of certain types used to be 'retained' in one or two local villages only. This way the good or bad music used to have narrow impact only.

In view of the umpteen tools provided by the modern scientific developments, the potential of music could now be employed for enormous applications provided its original quality and tradition of dedicated practice is resurrected with firm determination. Scientific and technological developments have gifted the radio sets, transistors, tape-recorders, gramophones, stereos, ipods, and other sophisticated music systems and online facilities, using which one can listen to the music of his choice at will. The performance of a single expert can reach almost every corner of the globe instantaneously and can be recorded and (digitally) preserved 'forever' with the help of modern technology. Despite such facilities, a large section of the society is using them only for the purpose of entertainment via filmy or pop or jazz-type music in general. The so-called Light or semi-classical music is mostly 'enjoyed' as a fashionable hobby.

Nevertheless, realization of the power of sound by the scientists in the recent times and its use in a wide variety of applications has raised hopes for the constructive applications of music too. The linkage of pure music with the emotions has survived all storms of cultural devaluation. Even the success of a commercial film largely depends on the melody of its music. A touching song or tune can make the audience cry. Devotional music can drive the heart and mind into higher horizons of

peace and ecstasy. As described in some of the earlier Sections of this book, use of music therapy is also becoming popular in the fields of healthcare since past few decades. This is the right time to integrate the modern science with the *swara vijñāna* (the ancient yogic science of musical notes) to evolve higher-level applications of music.

It should be re-emphasized here that apart from its significant effects on the body and the mind, music also has substantial impact on the inner self – the sublime core of sentiments, beliefs, convictions, faith and the spiritual foundations. According to Swami Ramakrishna Paramhansa, the soul is awakened by sincere call of pious music; the man who has the talent of eternal music would surely possess the glow of divinity in his inner self. Sages of the Indian science of spirituality know that the realization of *anāhatnāda* is similar to experiencing the supreme quality of the divine music.

### **Detoxification of Polluted Music:**

The higher-level applications of music would be reflected in the emotional evolution of the individuals and overall elevation of the society thereby. But this cannot be achieved without preventing the cultural devolution. The first step in this direction would be to stop the large scale (mis)use of music in commercial advertisements and substandard songs. Even the 'folk' songs conventionally sung in the Indian society on the occasions of a wedding or a childbirth etc often consist of cheap and vulgar lyrics; such practices should be avoided. Third grade and erotic literature and art induce a perversion of mind and hence of the personality too. Their insidious effects expand more rapidly and inscribe deeper impressions on the mental and emotional character if the literature is presented in verse

with musical support and the expression of the art is accompanied by music in the background.

Lyrics of a song, because of the inherent emotions that motivate its creation, leave their mark even on the subconscious mind of a little child, who does not understand the meaning of those words. The power of instrumental music is no less in any respect. For instance, the instrument *śahanāi* (*Shahanaï*), when played on the occasion of a marriage celebration, creates a cheering atmosphere; but the same instrument, because of the different tuning of its *swaras*, generates the emotional waves of gloom and makes the people weep when played during a condolence meeting. Untoward effects of the high beat, loud music like pop, jazz, or disco are so obvious that they can be recognized at the physical level itself. Even the ears refuse to listen to such music at a continuous stretch.

The standard of music, because of its intimate relationship with the human sentiments, also affects the general trends of arts and cultural development. Therefore, one may hope that an improvement in the level and quality of the music commonly practised and listened in the society today would also bring-in a corresponding change the cultural system in due course of time.

The efforts of the social organizations like R-for-R in the USA, Mr. Shinichi Suzuki's mission in Japan and institutions like Shantikunj, Haridwar in India have set glorious examples of how the masses could be engaged in the noble cause of social welfare through quality based music. In fact, the simple projects of popularizing devotional music and semi-classical or light music or folk music etc, accompanied by inspiring lyrics and decent dances could also prove to be fruitful in awakening positive outlook and virtuous tendencies of the masses. This would be more effective in the societies like the Indian because,

music has deep roots in the largely religious and social makeup of the people here.

The writers, poets and musicians in India may also attempt to excel their art and talents by following, to some extent at least, the traditions of Meera, Tulasi, Chaitanya, etc and the great artists and poets of the modern times like Ravindranath Tagore. The social activists and all those who care for value-based culture must proceed to generate public awareness about the scientifically proven mal effects of obscene, erotic, noisy, fast-beat and substandard music. The artists, who adulterate the 'nectar' of the pure Ganges of musical currents by mixing the 'toxins' of cultural perversion, must be discouraged by public boycotts and counter propaganda.

### **Significance of Pure Music in Holistic Well-being:**

On the personal front, everybody should give proper place to good music in daily life. If one cares for the maintenance of emotional stability and happy state of mind, it would not be difficult to identify and implement appropriate methods of doing so. The physical body needs oxygen, water and food for survival. The subtle body gets boost from creative thinking and enthusing achievements. The causal body likes to float in the ocean of pious, compassionate and blissful emotions and spiritual inspirations. It is only in the happy state of the subtle and causal body that one gives and gets back love, sympathy, kind co-operation and support from the friends, relatives and everybody else in the domain of substantial interactions. Devotional practices and realization of divine grace becomes possible through the sanctity and intensity of such emotions.

The field of mental aspirations is highly dynamic in nature. The same is true of the emotional domain. A child, who,



because of the emotional attachment, does not want to leave his mother even for a moment, starts finding immense pleasure in the company of his friends after few years. Later on, this focus is shifted towards the life partner and his emotional charge is directed towards this beloved one. Still later, this love is shared by the children and successively by the grand children. At last, these ups and downs and the nimble flow of emotions in one's life stop under the shelter of death.

It is remarkable to note that the unique linkage between music and emotions does not fluctuate in spite of other inevitable changes throughout one's life. The warmth of this relationship never turns stale. Its intimacy increases more and more as one is engrossed and gets mentally 'dissolved' in the melodious currents of the natural *swaras* of music. Thus, the support of music along with other chores of day-to-day life is a promising means for regular boost in the vital energy and emotional food for the subtle and causal body.

Man's unlimited desires for materialistic comforts and sensual pleasure and his unconsumable passions for gaining more and more fame and success have suppressed the natural inspirations of his causal body at present. Today, he has no time for paying attention to his internal development. This in turn has further encouraged his animal instincts. The vicious cycle has put human-ideals on the verge of extinction today. It is high time that the awakened souls do something to ameliorate the sentimental levels of people around. Music seems to be one of the most easily accessible, uniformly applicable and naturally effective remedies for the present ailing state of human society.

For long-term maintenance of the human-dignity it would be necessary that the children of today be given emotional

strength, motivation, and guidance for developing a happy and healthy society in future. This can be achieved if their subtle and causal bodies are kept healthy along with their physical fitness. Integrating good music with childcare and making it an essential component of education may serve this purpose to a great extent. The ever-freshening joy of music is so natural that it will continue to occupy important place in their lives in future too. Regular exposure to devotional and inspiring music would be more fruitful in sustaining the activation of the divine sentiments that are subtly indwelling in the latent layers of the inner self of every human being. Practice and popularization of the refined music of this kind will also be useful in stimulating the rather rigid or dull minds of many of the adults today.

Iron can be molded into any desired form in a melted state. The same is true with the human mentality. The preaching and guidance turn out to be most effective if given under proper emotional conditioning. As devotional music can educe the associated emotions, teaching and inspiring the masses with its support would work could have better and deeper impact as compared to the philosophical discourses or intellectual discussions. The programmes of *samkirtana* – collective singing of devotional songs with a support of melodious music in the background – is quite powerful as it helps awaken the collective consciousness that can also induce divine vibrations in the sublime environment of life. The apparently simple methods of adopting the practice of devotional and inspiring music in daily life are most practical and promising towards setting up the basis for majestic applications of music in future.



## The Highest Yoga of Music

**T**he ancient science of *mantras* is based on awakening the power of *Śabda* and the ancient science of music deals with the potential of *Nāda*.

Ideal use of these streams of immense powers demands refinement of *vāñī*, perfection of *swaras* and the sanctity and sincerity of emotions.

Musical compositions subliminally contain, like the *mantras*, specific energy of sound. This energy of sound, at the physical level, is natural like the energy of light, heat and electricity. Vibrations in the medium of air or ether manifest the presence of this sublime energy. Right from its use in conversation, communication, thought expression, the energy of sound plays wonders in its subtle (non-audible) forms at the ultra and infra levels. The thought waves are also generated and propagated through this energy in still subtler form.

It is said that the faculties of a human body, which are associated with sound, are of paramount importance. Several of the renowned talents in the modern history were blind; these include – the eminent scholar like Swami Virajānand,

distinguished poet like Suradāsa, celebrity singer like K.C. Dey, etc, to name a few. Ample examples of these types show that despite being deprived of one or more of the normal faculties, people have achieved great heights in different fields of artistic and intellectual excellence through their *vāṇī* (voice) – the expressive power of *Śabda*. But for the exceptions like Helen Keller, the examples of deaf and dumb persons doing remarkable tasks are very rare in recent history.

The most important association of the power of *Śabda* with the human body and mind is reflected in terms of its effects on the physiological and psychological functions. These effects become deeper and penetrate even the latent emotional layers when the power of *Śabda* is expressed in a composition of the eternal *swaras* of *Nāda*. Music, being a manifestation of the power of *Nāda*, plays a vital role in maintaining one's physical, mental and spiritual health.

The perfection and dedication of one's expertise in original classical music (*shastric music*) is a reflection of the evolution of his/her consciousness. With this perfection, the *consciousness* power of the life-force can also affect the *jaḍa* component of the Nature. Whence the supernatural effects of the *Indian classical rāgas* comes into existence.

The human body is described in the ancient scriptures as a divine musical instrument – the *Gātra Viṇā*. The seven basic *swaras* (of the musical octave) – *Sā, Re, Ga, Ma, Pa, Dha, Ni* have direct connection with the extrasensory energy nuclei (*chakras*) at the interface of the physical and subtle bodies of human beings. The *Mulādhāra Chakra* is associated with '*Sā*'; *Swādhīsthān* with '*Re*', *Maṇipūra* with '*Ga*'; the *Anāhata chakra* with '*Ma*'; *Viśudhā* with '*Pa*'; *Agyā* with '*Dha*' and *Sahasrāra* with '*Ni*'. The continuous flow of *prāṇa* from the *mūlādhāra* to

*sahastrāra* in the above order, and from *sahastrāra* to *mūlādhāra* in the reverse, correspond to the *āroha* and *avaroha* (rhythmic ups and downs) of the seven *swaras*.

The practice of the pure *shastric* music deals with the *āhata nāda* while the *nāda yoga sādhanā* aims at the realization of its subtlest form - the *anāhata nāda*. Devotional practice of music gives an excellent preconditioning of the mind for meditation and the spiritual *sādhanās* like the *nāda yoga*. A true yogi of music is the one who has purified and controlled his/her voice (or the voice of his/her instrument) by dedicated *sadhana*, whose devotion to *shastric* music is the vibrations emanated from his/her music also harmonize with the sentiments of the inner self. Deep mental engrossment in divinely pure music leads such a yogi into a blissful state of trance. The *āroha-avaroha* of the *swaras* in this state 'electrifies' the upward and downward flow of *prāṇa* and thus helps kindling the spiritual fire of *Kuṇḍalinī*.

The above kinds of spiritual endeavors through dedication to pure music could be likened with the most advanced kinds of scientific experiments on human body, sound and consciousness. Quality, rigorous training and dedication are the basic requirements here as would also be expected in any field of scientific research. This area of research has great scope in terms of the enormous physical applications of the rhythmic effects of the collective harmony of the sound waves in music and the extraordinary benefits of spiritual illumination through the inherent power of *Nāda* immanent in it. Shantikunj, Hardwar and its research wing Brahm Varchas Research Centre together with the Dev Sanskriti University (DSVV) have initiated reviving the efforts of the *rishis* to some extent by endeavoring special research activities in the fields of Music and *Nāda Yoga*.

# Glossary of terms used from Shastric Literature

*Abhinaya*: Emotional states of the singers and the musicians reflected in their face expressions and actions are called *abhinaya*.

*Agnihotra*: A small-scale *yajña* (*mantra*-based experiment of sublimation of herbs in sacrificial fire) is called *agnihotra* or *havan*.

*Anāhata Nāda*: The 'unbeaten' (i.e. created without striking any physical medium), eternal musical sound.

*Brahmrandhras* are described in the science of *yoga* as - the subliminal sensors of cosmic consciousness; *yoga* scriptures describe these as inlets/outlets of extrasensory energy passages beneath the crown *chakra*.

*Ghungharu*: Anklet (Small bells wore around the ankles) wore during Indian classical dance.

*Iḍā* and *Pinglā Nāḍis*: The word *nāḍī* implies a neural passage. The terms *Iḍā* and *Pinglā nāḍis* refer to the extrasensory energy

streams connected with the *Pituitary* and *Pineal* glands. These are sublime channels of the solar and lunar currents of vital energy flowing with the natural breath through the right and the left nostril respectively. The *Idā* and *Pinglā nāḍīs* are located respectively along the right and the left side of the *Suṣumnā Nāḍī* – transcendent channel (of the flow of *prāṇa*) hidden in the inner core of the spinal column.

*Jaḍa* and *Chetan*: *Jaḍa* refers to all the material forms and perceivable manifestations of Nature; *Chetan* encompasses the domains of existence and expressions of consciousness.

*Kuṇḍalinī*: Extrasensory nucleus of vital spiritual energy.

*Mantra Vijñāna (Vigvāna)*: Ancient Science of (Vedic) Mantras.

*Mṛaga*: Deer.

*Nāda*: The rhythmic flow of (eternal) musical sound.

*Omkāra*: The deep musical sound of rhythmic chanting of "Oam"

*Para Brahm*: Supreme soul, the omnipresent, eternal consciousness force.

*Parikramā*: To make a round along the periphery (of a temple, a sacred pond, etc).

*Prāṇa*: Vital spiritual energy.

*Rasa*: That (psychological element) which 'secretes' feeling of joy, or induces specific emotional condition and mood (e.g. *Bhakti rasa* implies devotional feeling; *Vīra rasa* is associated with the emotional state that inspires acts of valor, etc).

*Rishis*: Indian Seer-sages, yogis of Vedic times.

*Samskāras*: Vedic Sacraments or process of refinement meant for tuning of the mind at important junctures of lifespan, make one realize his/her duties in the next phase of life, and also introduce him to the practical ways to make full use of his/her potentials. These are essential rituals and distinguished features of the Indian Culture. These and the associated disciplines are based on the spiritual experiments devised by the *rishis* for positive psychological development of a human being.

*Sapta Swaras*: The seven basic notes of musical notes; popularly known as the Octave of Indian Classical Music.

*Savitā*: The subtle body of the sun is referred as *Savitā*.

*Swara Vijñāna*: The ancient yogic science of musical notes.

*Śabda*: The eternal element of cosmic sound.

*Śabda Brahm*– *Nāda Brahm*: The cosmic and spiritual dimensions of sound. *Brahm* implies absolute truth, knowledge and joy. *Śabda* – the omnipresent eternal origin of sound. *Nāda* – the eternal element of the self-existent cosmic impulse of music. *Śabda* and *Nāda* immanent in the subliminal as well as the gross realms of existence and their ever-evolving expressions in infinity are referred in the Vedic texts as *Śabda Brahm* and *Nāda Brahm*.

*Ṣaṭ Chakras*: The six extrasensory energy nuclei along the endocrine column. The crown *chakra* (*Sahasrāra Chakra*) being at the top and the base *chakra* (*Mulādhāra Chakra*) being the lowest end.



*Śāstrās: Ancient Indian Texts.*

*Śāstriya: Pertaining to or derived from the Śāstrās.*

*Śraddhā: Intrinsic faith in divine values and associated force of inner emotions.*

*Śrutis: The knowledge gained by the rishis through “listening to the sublime cosmic voice” is referred in the Vedic texts as “Śruti” The different expressions of Nāda that were experienced by these spiritual experts of music in the Vedic Age are also termed “Śrutis”*

*Yagyaśālā: The place where yagya is performed is called yajñaśālā.*